PHYSICAL PROPERTIES OF CHEMICAL COMPOUNDS—II

Comprehensive data on
476 organic straight-chain compounds
in systematic tabular form

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PHYSICAL PROPERTIES OF CHEMICAL COMPOUNDS—II

A systematic tabular presentation of accurate data on the physical properties of 476 organic straight-chain compounds compiled by R. R. Dreisbach of the Dow Chemical Co. These comprehensive and basic data were determined for specially prepared high purity compounds. In addition to the precisely measured properties, the author has calculated new values for many constants based upon his new experimental values.

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The physical properties covered in this book are listed below. Ranges covered are given in parentheses.

Parameters for various empirical equations are tabulated, which permit accurate interpolation and extrapolation of the various properties within the ranges designated.

Where any of the values below are missing, it is because they have never been determined, or are patently inaccurate. Where the determined values do not conform to the formulas, they have been adjusted accordingly and labeled calculated.

To get full value out of this reference work, the editors recommend that the user take the time to become familiar with the section "Definition of the Symbols and Parameters Used, with the Methods of Calculating the Parameters."

Purity
Freezing point
Vapor pressure (25° C. to crit. temp.)
Liquid density (25° C., approx. 3 atm.)
Vapor density (25° C., approx. 3 atm.)
Refractive index (25° to approx. 60° C.)
Rate of change of boiling point
  with pressure (25° C., to crit. temp.)
Latent heat of fusion
Latent heat of evaporation (25° C., approx. 3 atm.)
Critical values
Compressibility (25° C., approx. 3 atm.)
Viscosity (approx. 0° to 100° C.)
Heat content (approx. 300° to 1000° K.)
Surface tension (20° to 40° C.)
Solubility (25° C.)

Introduction

This is a continuation of Mr. Dreisbach's compilation of physical properties of organic compounds. Data on 511 cyclic compounds were published in 1955 as Number 15 of the ADVANCES IN CHEMISTRY SERIES under the title of "Physical Properties of Chemical Compounds." The present volume includes 476 acyclic compounds.

As in the earlier volume, this compilation contains many data not hitherto published. It also includes parameters which can be used for interpolating and extrapolating the determined data for practically all of the compounds listed.

H. S. NUTTING, Director
Central Research Index
The Dow Chemical Co.

Physical Properties of Chemical Compounds

R. R. DREISBACH

The Dow Chemical Co., Midland, Mich.

Definition of the Symbols and Parameters Used, with the Methods of Calculating the Parameters

Mol. % Pur.: Mole % purity by weight.

F.P.: Freezing point, °C.

F.P. 100%: Freezing point curve extrapolated to 100% purity.

B.P. 760 mm., 100 mm., etc.: Boiling points at these pressures, °C.

P_{25}: Pressures at 25°C., in mm.

P_e: Pressure corresponding to temperature t_e in mm.

d^{20}, etc.: Density at 20°C., etc., g./ml.

a. b: Constants of Law of Rectilinear Diameters, $d_v + d_L = a + bt$.
d_v = density of the vapor, g./ml.; d_L = density of the liquid, g./ml.

n_D^{20}, etc.: Refractive index for the sodium line at 20°C., etc.

C: Constant of the Eykman equation, $(n_D^2 - 1)/(n_D + 0.4) \times 1/d = C$

MR (obsd.): Molal refraction (obsd.) = $(n_D^2 - 1)/(n_D^2 + 2) \times M/d$ = MR at 20°C.
(M = mol. wt.)

MR (calcd.): Molal refraction calculated from atomic refractive indices. See page 8.

($n_D - d/2$): Refractivity intercept equals refractive index minus one half the density, both at the same temperature, 20°C.

D: Dielectric constant determined at a frequency of 10^5 (cycles/sec.) and at 25°C. unless otherwise noted. When reported as data of The Dow Chemical Co., error about ±0.005. Where Reference 5 is noted it was obtained by squaring the refractive index at 20°C.

A, B, C: Constants of the Antoine vapor pressure equation for the liquid state, giving P (pressure) in mm. and t (temperature) in °C. This is in the range between the temperatures as indicated. These temperatures in general are the boiling point at 30 mm. to a T_R of 0.75 to 0.80. See method of obtaining A, B, C on page 6.

Antoine equation: $\log P = A - B/(t + C)$.

A^*, B^*, K, c, t_k, t_x: Constants of the saturated vapor density equation

$\log d_v(\text{g./ml.}) = A^* - B^*/(t + C)$ to the temperature t_k.

$\log d_v(\text{g./ml.}) = A^* - B^*/(t + C) + K/(1.1\ T_c - 273.2 - t) + c$

from temperature t_k to a reduced temperature, T_R, of 0.92

t_k = Temperature at which it is necessary to change from the simple vapor density equation to the corrected vapor density equation in the higher ranges, °C.

$t_k = t_x + K/c$ and $t_x = (1.1\ T_c - 273.2)$°C.

A^* and B^* where the latent heat at the atmospheric boiling point is available.

$V_g - V_L = (31381.7 \times \Delta Hv \times dt/dp)/T$

Where the latent heat is not available use

$M(\Delta Hv)/T_B = 21.0$ and from this $\Delta Hv = (T_B \times 21.0)/M$

The value 21.0 (or any other value as 21.4 say) is obtained from the nearest related compound which has a latent heat available. Then proceed as in case where latent heat is available for Vg value at B.P.

Since $d_v = 1/Vg$

$\log d_{v760} = A^* - B^*/(t_B + C)$ at 760 mm.

$\log d_{v30} = A^* - B^*/(t_{30} + C)$ at 30 mm.

Solve for A^*, B^*, since t and d_v at 760 mm. and 30 mm. and C are known.

A', B', C': Constants of the Antoine vapor pressure equation below 30 mm. pressure, covering the temperature range as indicated. See method of obtaining the constants on page 6.

A'^*, B'^*: Constants of the vapor density equation below 30 mm. These two values are obtained by using the boiling point at 30 mm. and the pressure at 25°C. (obtained from the values A', B', C') and assuming that at 25°C. the relationship $PV/RT = 1$. Then we have Vg at 25°C. $= RT/MP = 62,361 \times (25 + 273.2)/MP$.

Then $dv = 1/Vg$. Inserting these values of vapor density we then solve the two equations for the values of A'^* and B'^* as in the case of A^* and B^*.

Ac, Bc, Cc: Constants of the Antoine vapor pressure equation for the liquid state from $T_R = 0.75$ (or a higher T_R as indicated) to the critical temperature. See method of obtaining the constants on page 7.

Cryoscopic Constants, $A°$, $B°$: Cryoscopic constants for calculating mole % purity. See *J. Research Natl. Bur. Standards*, **35** (1945); RP 1676.

t_e °C.: Temperature at which a mole of the vapor occupies 22.414 liters and the vapor is in equilibrium with the liquid, in °C.

$$te = \frac{B^*}{(A^* - \log \mathrm{dv}_e)} - C$$

dt/dp: Rate of change of boiling point with pressure, given by equation $dt/dp = B/(2.3026 \times P \times (A - \log P)^2)$ °C./mm. Also $dt/dp = (t + C)^2/2.3\ PB$

ΔHm: Latent heat of fusion in cal./g.

ΔHv: Latent heat of vaporization at the temperature designated, cal./g.

$t_e(d, e)$: The latent heat of vaporization at temperature t_e as given by the equation $\Delta H_v = d - et$, indicates the accuracy of this equation at temperature t_e.

$\Delta H_v/T_e$: Molal latent heat cf vaporization at t_e divided by T_e. (Equal to the mola entropy of vaporization at t_e.)

$d, e;\ d', e'$: These are parameters of the latent heat of vaporization equation. ΔHv(cal./g.) $= d - et$. This is valid between the temperatures indicated. It has been found that the latent heat between the boiling point at 30 mm. and the boiling point at 760 mm. is almost a linear function of the temperature. As seen in most cases, this equation holds almost to temperature t_e. Above and below this the latent heat is not linear with temperature except for short intervals.

d_c: Critical density, g./ml.

v_c: Critical volume, ml./g.

t_c: Critical temperature, °C. See also page 7.

P_c mm.: Critical pressure in mm. Where this was not obtained from the literature it is calculated as follows (The Thomson method, private communication from George W. Thomson): The critical temperature is inserted in the Antoine equation, using the A, B, and C values to calculate the critical pressure.
This value is too low. This is then multiplied by 1.07 and is assumed to be the critical pressure. In the great majority of cases, this will agree with determined values to within ±3%. For high boiling compounds this value must be decreased, since in most cases there is somewhat irregular drift with increasing temperature, so this should be continually lowered as the boiling point becomes increasingly higher.

PV/RT: Compressibility at the temperature designated.

$z = PV/RT$

where P = pressure in mm., V = volume in ml./mole, and $R = 62361$.

ΔHc: Heat of combustion, kcal./mole, gas at constant pressure, 298.16°K. or 25°C.

ΔHf: Heat of formation, kcal./mole, liquid at 298.16°K. or 25°C.

ΔFf: Free energy of formation, kcal./mole, liquid at 298.16°K. or 25°C.

η: Kinematic viscosity in centistokes, at temperature designated. The kinematic viscosity is given by the equation

$\log \eta = A^v + B^v/T$

between the temperatures indicated to an accuracy of 1% or better.

B.P. °C., 30 mm.; dt/dp; ΔHv; PV/RT: These values at 30 mm. are calculated from the Antoine equation using A, B, and C. It has been found that at 30 mm. in almost all Cox chart families the ratio PV/RT is negligibly different from one. This, then, has been taken as one point (the other point being the B.P. at 760 mm.) from which to calculate A^* and B^*, always assuming the compressibility as 1.0000 at 30 mm.

c_p: Specific heat at constant pressure at temperature designated, cal./g. °K.

c_v: Specific heat at constant volume at temperature designated, cal./g. °K.

f, g, h, f', g', h': Parameters of the heat capacity equation for the liquid for the temperature ranges designated, °K.
$c_p(\text{liquid}) = f + gT + hT^2$

m, n, o, m', n', o': Parameters of the heat capacity equation for the vapor for the temperature ranges designated, °K.
$c_p(\text{vapor}) = m + nT + oT^2$

γ: Surface tension in dynes/cm., at temperature designated.

$[P]$: Parachor at the temperature designated:
$M(\gamma)^{1/4}/(d_L - d_v) = [P]$

$[P]$ Sugd.: Parachor from atomic and structural values as given by Sugden. See table. The parachor value for oxygen as hydroxyl (alcohols) in these tables is taken as 15. Sugden gives the values of 20 for oxygen and 30 for oxygen in esters, which does not seem to work for alcohols and phenols.

Exp. L.l.; Exp. L.u.: Explosion limits lower and upper range, % by wt.

Dispersion: Specific dispersion, $10^4(n_F - n_c)/d$, ml./g. at 25°C.
n_F, n_c = refractive index for F and C lines.
d = density, g./ml.

Flash and Fire Points, °C.: Cleveland open cup (ASTM D 92-46) if not otherwise designated. Closed cup (ASTM D 56-36) will be designated as such.

M Spec.: Mass Spectrograph.

Ultra V.: Ultraviolet.

X-Ray Dif.: X-Ray Diffraction.

Infrared: Infrared Spectrograph.

Solubility at 25°C., in solvents as designated.

Explanation of the methods used for calculating the various parameters in the foregoing:

A, B, C: The A, B, and C constants, except where given by the API reports, are calculated by means of the Thomson method [*Chem. Revs.* **38,** 1–39 (1946)] using the determined boiling points at three different pressures. The three formulas for this are as follows:

$$(y_3 - y_2)/(y_2 - y_1)\cdot(t_2 - t_1)/(t_3 - t_2) = 1 - (t_3 - t_1)/(t_3 + C)$$
$$B = (y_3 - y_1)/(t_3 - t_1)\cdot(t_1 + C)(t_3 + C)$$
and $A = y_1 + B/(t_1 + C)$

where y_1, y_2, and y_3 are equal to $\log P_1$, $\log P_2$, and $\log P_3$ at temperatures t_1, t_2, and t_3. Unless the data for the three points are *very* accurate, the C value can be considerably in error. As a check on this method an empirical formula developed by Thomson (private communication from George W. Thomson) will give a much better value of C if the data are much in error. This formula is $C = 239 - 0.19t_B$. The A and B values can then be readily determined from the two points given, since they are much less critical.

A', B', C' (for pressures below 30 mm.): Applicable when molar heats of vaporization are available at 25°C. and the Antoine equation can be used to obtain the boiling point at 30 mm. Let A, B, C be the constants of the usual Antoine equation valid above 30 mm. and let A', B', C' be the constants of the Antoine equation sought for below 30 mm. These two equations are taken to give the same value of the pressure-temperature slope at 30 mm.

$$\log 30 = A - B/(t_1 + C) = A' - B'/(t_1 + C')$$
$$B/(t_1 + C)^2 = B'/(t_1 + C')^2$$

Since PV/RT may be assumed to be 1.0000 at t_1, the temperature corresponding to 30 mm., and is also 1.0000 at 25 °C., the molar heat of vaporization at 25 °C., $M\Delta Hv_2$ is given by
$M\Delta Hv_2 = 2.3026\ RB'\ [(t_2 + 273.2)/(t_2 + C')]^2$
where $t_2 = 25$°C. To solve for A', B', C' let
$g_2 = M\Delta Hv_2/2.3026\ R(t_2 + 273.2)^2 = M\Delta Hv_2/406883$ if $t_2 = 25$°C.

Since t_1, t_2, and all values on left-hand side of equations above are known, then B' and C' are readily obtained as follows:
$[B'/(t_2 + C')^2][(t_1 + C')^2B'] = g_2(t_1 + C')^2/B' =$ say, h^2
Then $C' = (t_1 - ht_2)/(h - 1)$ and $B' = g_2(t_2 + C')^2$
Also $B' = B[(t_1 + C')/(t_1 + C)]^2$
$A' = \log 30 + B'/(t_1 + C')$ since $P_1 = 30$ mm.
These formulas were developed with the aid of George Thomson.

When heats of vaporization at 25 °C. are not known:

In this case the C' value is estimated and A' and B' are calculated from known data. It was noticed that C' has a value approximately 18 higher than C when latent heats at 25 °C. are known. By adding this increment to C we have C', then B' from the relation for the first case
$B' = B[(t_{30} + C')/(t_{30} + C)]^2$
and then A' as in first case.
In the case of the alkenes and alkynes the A', B', C' and A'^*, B'^* were not calculated by the above method, since the data for these compounds is much less reliable than in the case of the alkanes.

Ac, Bc, Cc: This method was developed by George Thomson [*Chem. Revs.* **38,** No. 1, 23 (1946)] and is similar to the one for obtaining A', B', C'. It is assumed that parameters A, B, C of the Antoine equation are good to a T_R 0.75 or a higher reduced temperature, and this temperature corresponds to the 25 °C. in the case of A', B', C', and the critical point corresponds to the 30-mm. point.
$B/(t_1 + C)^2 \times (t_c - t_1)/(y_c - y_1) = 1 + (t_c - t_1)/(t_1 + Cc)$
and $Bc = (y_c - y_1)/(t_c - t_1) \times (t_1 + Cc)(t_c + Cc)(t_c + C_c)$; $\mathrm{Ac} = B/t_c + C_c + y_c$
where t_1 °C. $= T_R$ 0.75, t_c °C. = critical temperature
$y_1 = \log P$ at t_1, $y_c = \log P_c$
The first equation is used to evaluate Cc, the second, Bc, and the third, Ac.

Association: The association in the vapor phase of organic acids seems to vary inversely as the temperature for some acids, at least for part of the range. In part of the range, and also apparently for some acids over the whole range, the association is fairly constant. The association is given in these sheets by the formula $M_x = p - rt$. For instance, for acetic acid this formula would be $M_x = 2.225 - 0.004085\ t$ from 0° to 100°C. From 100 °C. to a T_R of 0.92, $M_x = 1.85$. That is to say, the vapor density as calculated by the A^*, B^* formula would have to be multiplied by this correction factor to take care of the association. Further, if the reciprocal of the density is used as calculated to give vapor volume, it would be necessary to divide by 1.85 to get the actual vapor volume.

t_c: Where the critical temperature has not been determined, it is calculated by Watson's equation:
$T_s/T_c = 0.283\ (M/d_s)^{0.18}$
where d_s = liquid density, g./ml. at the boiling point, and M = molecular weight. This is used for all hydrocarbons and halohydrocarbons.

f, g, h, m, n, o, etc.: For a short temperature range the equation $C_p = f + gT + hT^2$ reproduces almost exactly determined data. The parameters were set up on the IBM machines using eight determined values where that many or more were available.

The IBM machines were used to set up the Antoine constants from determined data. A preliminary *C* value was obtained from the equation $C = 239. - 0.19t_B$. *A* and *B* were then obtained and new *C* values either side of the first *C* used and new *A* and *B* values found. In each case above, the boiling points at the experimental pressures were calculated and compared with the determined boiling points.
Actually the value of *C* was generally obtained from $C = 239. - 0.19t_B$, since the determined values must be *very very* accurate to give better values of *C*.

Cox Chart Families

1. Alkanes
2. Haloalkanes
3. Alkenes
4. Haloalkenes
5. Diolefins
6. Alkynes

Atomic Refractive Indices Used for Computing Molecular Refractive Index

All values are for the sodium line.

Carbon singly bound and alone	2.592	NO as nitrites	5.91
Carbon singly bound	2.418	NO as nitrosoamine	5.37
Carbon double bond	1.733	NO_2 as alkyl nitrite	7.44
Carbon triple bond	2.398	NO_2 as alkyl nitrate	7.59
Carbon conjugated	1.27	NO_2 as nitroparaffin	6.72
Hydrogen	1.100	NO_2 as nitro aromatic	7.30
Oxygen—hydroxyl	1.525	NO_2 as nitramine	7.51
Oxygen—ethereal	1.643	Fluorine	0.95*
Oxygen—ketonic	2.211	Chlorine	5.967
Oxygen—as ester	1.64	Bromine	8.865
Sulfur—as SH	7.69	Iodine	13.900
Sulfur—as RSR	7.97		
Sulfur—as RCNS	7.91		
Sulfur—as RSSR	8.11		
Nitrogen			
As aliphatic primary amine	2.45		
As aromatic primary amine	3.21		
As aliphatic secondary amine	2.65		
As aromatic secondary amine	3.59		
As aliphatic tertiary amine	3.00		
As aromatic tertiary amine	4.36		
As hydroxylamine	2.48		
As hydrazine	2.47		
As aliphatic cyanide	3.05		
As aromatic cyanide	3.79		
As aliphatic oxime	3.93		
As primary amide	2.65		
As secondary amide	2.27		
As tertiary amide	2.71		

* This value for one fluorine atom attached to carbon. The value 1.1 is to be used for each fluorine atom in polyfluorides.

Atomic and Structural Constants for Calculation of Parachor

	Sugden		Sugden
CH_2	39.0	Br	68.0
C	4.8	I	91.0
H	17.1	Single bond	..
O	20.0	Double bond	23.2
O (Alcohol)	15.0	Triple bond	46.6
O_2 (Ester)	60.0	3-membered ring	16.7
N	12.5	4-membered ring	11.6
N (nitrile)	14.4	5-membered ring	8.5
S	48.2	6-membered ring	6.1
F	25.7	7-membered ring	..
Cl	54.3	Aliphatic alcohol . . . subtract	6.0

No. 1

NAME	Methane			STRUCTURAL FORMULA
				CH_4
Mole % Pur.	Ref.	Molecular Formula CH_4	Molecular Weight 16.042	

		Ref.
F.P. °C	-182.48	2
F.P. 100%		
B.P. °C		
760 mm	-161.49	2
100	-181.45	2
30	-190.	4
10	-195.51 ≠	2
1	-207.0	5
Pressure		
mm -140 °C	3289.7	5
t_e	272.1	5
Density		
g/ml -160 °C	0.4222	3
d_4^t -150	0.4075	3
-140	0.3916	3
a -160 °C	0.4242	3
b	-0.00126	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.) MR (Calc.) (nD-d/2)	6.818	5
Dielectric		
A -180 to	6.61184	2
B °C	389.93	2
C	266.00	2
A* -165 to	0.74077	4
B* -130 °C	362.78	4
K	7.79	4
c	-0.15125	4
t_k -130 to		
t_x -100 °C	-63.0	5
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°	0.0138	2
consts. B°	0.0057	2
t_e °C	-172.65	4

		Ref.
dt/dP °C/mm		
-140 °C	0.00537	5
BP	0.0160	2
t_e	0.3567	5
30 mm	0.2141	4
ΔHm cal/g	14.025	2
ΔHv cal/g		
-140 °C	115.67	3
30 mm	133.34	5
BP	121.87	2
t_e	125.30	5
t_e (d, e)	126.36	5
$\Delta Hv/T_e$	19.99	5
d -190 to	56.90	5
e -160 °C	0.4023	5
d' to		
e' °C		
d_c g/ml	0.162	2
v_c ml/g	6.17	2
t_c °C	-82.5	2
P_c mm	34808.	2
PV/RT		
-140 °C	0.9208	4
30 mm	1.0000	5
BP	0.9628	4
t_e	0.9726	5
t_c	0.290	2
ΔHc kcal/m	191.76	2
ΔHf		
ΔFf		
Viscosity centistokes		
η -180 °C	0.418	2
-175	0.364	2
-170	0.325	2
-165	0.295	2
B^v -180 to	101.76	4
A^v -160 °C	$\bar{2}.52937$	4
(B^v) to		
(A^v) °C		
c_p liq. 300 °K	0.53310	2
400	0.60691	2
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.1259	4
n 600 °K	0.0015	4
o	$0.0_6 66$	4
m' 700 to	0.1408	4
n' 1000 °K	0.0013	4
o'	$-0.0_6 34$	4
Surface tension		
dynes/cm. -180 °C	18.0	2
γ -170	15.8	2
-160	13.7 #	2
Parachor [P] 20°C		
30		
40		
Sugd.	73.2	5
Exp. L.1.%/wt. u. Dispersion		
Flash Point °C Fire Point		
M. Spec. Ultra V. X-Ray Dif.		
Infrared	Yes	2
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

≠ solid   # at saturation pressure   + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 Young

No. 2

NAME	Ethane		STRUCTURAL FORMULA CH_3CH_3
Mole % Pur.	Ref.	Molecular Formula C_2H_6	Molecular Weight 30.068

		Ref.
F.P. °C	-183.27≠	2
F.P. 100%		
B.P. °C		
760 mm	-88.63	2
100	-119.33	2
30	-132.74	4
10	-142.88	5
1	-159.51	5
Pressure		
mm 25°C	29290.	5
t_e	480.9	5
Density		
g/ml-60°C	0.509	3
d_4^t 20	0.363	3
30	0.30	3
a	0.364	4
b	-0.0_363	4
Ref. Index		
n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)		
(nD-d/2)		
Dielectric		
A | -132 to	6.80266	2
B | -44 °C	656.40	2
C	256.00	2
A* | -132 to	0.98156	5
B* | -90 °C	613.9	5
K		
c		
t_k | to		
t_x | °C		
A' | to		
B' | °C		
C'		
A'* to		
B'* °C		
Ac | -44 to	7.67290	5
Bc | t_c °C	1096.9	5
Cc	320.54	5
Cryos. A°	0.04256	2
consts. B°	0.0095	2
t_e °C	-96.7	5

		Ref.
dt/dP		
°C/mm		
25°C	0.00213	5
BP	0.0244	2
t_e	0.0351	5
30 mm	0.3350	5
ΔHm cal/g	22.728	2
ΔHv cal/g		
25°C	76.86	5
30 mm	129.71	5
BP	116.97	2
t_e	119.45	5
t_e (d, e)	119.33	5
ΔHv/T_e	20.36	5
d | -132 to	91.37	5
e | -90 °C	0.2888	5
d' | to		
e' | °C		
d_c g/ml	0.203	2
v_c ml/g	4.92	2
t_c °C	32.27	2
P_c mm	36632.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9622	5
t_e	0.9735	5
t_c	0.288	2
ΔHc kcal/m	341.26	2
ΔHf		
ΔFf		
Viscosity		
centistokes		
η -120 °C	0.438	2
-110	0.387	2
-100	0.348	2
-90	0.314	2
B^v | -130 to	$13\underline{5}.71$	4
A^v | -80 °C	$\overline{2}.75615$	4
(B^v) | to		
(A^v) | °C		
c_p liq. °K		
c_p vap. 300°K	0.41225	2
400	0.52148	2
c_v vap.		

		Ref.
f | to		
g | °K		
h |		
f' | to		
g' | °K		
h' |		
m | to		
n | °K		
o |		
m' | to		
n' | °K		
o' |		
Surface tension		
dynes/cm. -110°C	19.57	2
γ -100	17.93	2
-90	16.31	2
Parachor [P]		
20°C		
30		
40		
Sugd.	112.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 Young

No. 3

NAME	Propane	STRUCTURAL FORMULA
		$CH_3-CH_2-CH_3$

Mole % Pur.	Ref.	Molecular Formula C_3H_8	Molecular Weight 44.094

		Ref.
F.P. °C	-187.69	2
F.P. 100%		
B.P. °C		
760 mm	-42.07	2
100	-79.63	2
30	-96.07	4
10	-108.5	4
1	-129.	5
Pressure		
mm 25°C	7095.	4
t_e	608.5	4
Density		
g/ml 20°C	0.5005≠	2
d_4^t 25	0.4928≠	2
30	0.4861	4
a	0.5375	4
b	$-0.0_{3}99$	4
Ref. Index		
n_D 20°C	1.2898	5
25		
30		
"C"	0.766	5
MR (Obs.)		
MR (Calc.)	16.054	5
(nD-d/2)	1.04	5
Dielectric	1.66	5
A -130 to	6.82973	2
B 5°C	813.200	2
C	248.00	2
A* -100 to	1.05579	5
B* -40°C	756.21	5
K	17.62	4
c	-0.13012	4
t_k -40 to		
t_x 65°C	134.0	5
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 5 to	7.33829	4
Bc t_c °C	1090.0	4
Cc	287.8	4
Cryos. A°	0.05802	2
consts. B°	0.0073	2
t_e °C	-46.98	5

		Ref.
dt/dP		
°C/mm		
25°C	0.00561	4
BP	0.0298	2
t_e	0.0355	5
30 mm	0.4109	4
ΔHm cal/g	19.10	2
ΔHv cal/g		
25°C	81.76	4
30 mm	114.70	5
BP	101.76	2
t_e	102.98	5
t_e (d, e)	102.94	5
$\Delta Hv/T_e$	20.07	5
d -100 to	91.68	5
e -45 °C	0.2396	5
d' to		
e' °C		
d_c g/ml	0.220	2
v_c ml/g	4.358	2
t_c °C	96.8	2
P_c mm	31928.	2
PV/RT		
25°C	0.8461	4
30 mm	1.0000	5
BP	0.9612	4
t_e	0.9669	5
t_c	0.278	2
ΔHc kcal/m	488.53	2
ΔHf	-28.643	2
ΔFf		
Viscosity centistokes		
η -80°C	0.524	2
-70	0.470	2
-60	0.425	2
-50	0.387	2
B^v -85 to	190.47	4
A^v -30°C	$\bar{2}.73347$	4
(B^v) -140 to	184.09	4
(A^v) -85°C	$\bar{2}.76598$	4
c_p liq. °K		
c_p vap. 300°K	0.40051	2
400	0.51118	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0169	4
n 600 °K	0.0014	4
o	$-0.0_{6}43$	4
m' 700 to	0.0960	4
n' 1000 °K	0.0012	4
o'	$-0.0_{6}40$	4
Surface tension		
dynes/cm. -70°C	19.2	2
γ -60	17.85	2
-50	16.49	2
Parachor [P]		
20°C		
30		
40		
Sugd.	151.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		
Viscosity centistokes		
η -130°C	1.126	2
-90	0.590	2
-40	0.355	2

$T_R = 0.75\ T_c$ ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 4

NAME	n-Butane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_4H_{10}	Molecular Weight 58.120	$CH_3CH_2CH_2CH_3$

		Ref.
F.P. °C	-138.350	2
F.P. 100%		
B.P. °C		
760 mm	-0.50	2
100	-44.17	2
30	-63.30	4
10	-77.76	4
1	-101.5	5
Pressure		
mm 25°C	1823.	4
t_e	724.6	5
Density		
g/ml 20°C	$0.5788^{\neq}$	2
d_4^t 25	$0.5730^{\neq}$	2
30	0.5671	4
a	0.6039	4
b	$-0.0_{3}99$	4
Ref. Index		
n_D 20°C	$1.3326^{\neq}$	2
25	$1.3292^{\neq}$	2
30	1.3252	5
"C"	0.7730	4
MR (Obs.)	$20.63^{\neq}$	2
MR (Calc.)	20.772	5
(nD-d/2)	$1.0432^{\neq}$	2
Dielectric	1.776	5
A -60 to	6.83029	2
B 45 °C	945.9	2
C	240.0	2
A* -60 to	1.11497	5
B* 30 °C	881.81	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 45 to	7.39949	4
Bc t_c °C	1299.	4
Cc	289.1	4
Cryos. A°	0.03085	2
consts. B°	0.0048	2
t_e °C	-1.75	5

		Ref.
dt/dP		
°C/mm		
25°C	0.01768	4
BP	0.03465	2
t_e	0.03597	5
30 mm	0.4778	4
ΔHm cal/g	19.167	2
ΔHv cal/g		
25°C	86.63	2
30 mm	105.08	5
BP	92.09	2
t_e	92.35	5
t_e (d, e)	92.35	5
ΔHv/T_e	19.77	5
d -60 to	91.99	5
e 0 °C	0.2069	5
d' 0 to	91.98	4
e' 30 °C	0.2228	4
d_c g/ml	0.228	2
v_c ml/g	4.387	2
t_c °C	152.01	2
P_c mm	28477.	2
PV/RT		
25°C	0.9286	4
30 mm	1.0000	5
BP	0.9582	4
t_e	0.9595	5
t_c	0.274	2
ΔHc kcal/m	635.05	2
ΔHf	-35.29	2
ΔFf		
Viscosity centistokes		
η -40 °C	0.491	2
-30	0.446	2
-20	0.407	2
-10	0.375	2
B^v -40 to	234.16	4
A^v 10 °C	$\bar{2}.68698$	4
(B^v) -100 to	227.42	4
(A^v) -40 °C	$\bar{2}.71750$	4
c_p liq. °K		
c_p vap. 300°K	0.40261	2
400	0.50929	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0351	4
n 600 °K	0.0013	4
o	$-0.0_{6}40$	4
m' 700 to	0.0974	4
n' 1000 °K	0.0012	4
o'	$-0.0_{6}40$	4
Surface tension		
dynes/cm. -30°C	18.43	2
γ -20	17.22	2
-10	16.02	2
Parachor [P]		
20°C		
30		
40		
Sugd.	190.2	4
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C	-60.	3
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		
Viscosity centistokes		
η -90°C	0.91	2
-50	0.545	2
0	0.350	2

$^{\neq}$ at saturation pressure $T_R = 0.75\ T_c$ + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

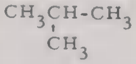
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NFPA 325

No. 5

NAME	2-Methylpropane			STRUCTURAL FORMULA
	Isobutane			
Mole % Pur.	Ref.	Molecular Formula C_4H_{10}	Molecular Weight 58.120	



$CH_3\underset{\displaystyle CH_3}{CH}\text{-}CH_3$

		Ref.
F.P. °C	-159.600	2
F.P. 100%		
B.P. °C		
760 mm	-11.730	2
100	-54.07	2
30	-72.52	4
10	-86.4	4
1	-109.2	5
Pressure		
mm 25°C	2611.	4
t_e	697.	5
Density		
g/ml 20°C	0.5572≠	2
d^t_4 25	0.5510≠	2
30	0.5450	4
a	0.5846	4
b	-0.0_398	4
Ref. Index		
n_D 20°C	1.3169	5
25		
30		
"C"	0.7675	5
MR (Obs.)		
MR (Calc.)	20.772	5
(nD-d/2)		
Dielectric	1.734	5
A -75 to	6.74808	2
B 30 °C	882.80	2
C	240.00	2
A* -75 to	1.04221	5
B* 0 °C	820.37	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 30 to	7.42067	4
Bc t_c °C	1288.1	4
Cc	296.7	4
Cryos. A°	0.04234	2
consts. B°	0.0057	2
t_e °C	-13.90	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0132	5
BP	0.0337	2
t_e	0.0361	5
30 mm	0.4600	4
ΔHm cal/g	18.668	2
ΔHv cal/g		
25°C	78.63	2
30 mm	99.79	5
BP	87.56	2
t_e	87.99	5
t_e (d, e)	88.00	5
ΔHv/T_e	19.72	5
d -75 to	85.20	5
e -10 °C	0.2011	5
d' -10 to	84.71	4
e' 25 °C	0.2431	4
d_c g/ml	0.221	2
v_c ml/g	4.525	2
t_c °C	134.98	2
P_c mm	27360.	2
PV/RT		
25°C	0.9083	5
30 mm	1.0000	5
BP	0.9648	4
t_e	0.9668	5
t_c	0.283	2
ΔHc kcal/m	633.05	2
ΔHf	-37.87	2
ΔFf		
Viscosity centistokes		
η -50 °C	0.619	2
-40	0.549	2
-30	0.491	2
-20	0.443	2
B^v -90 to	265.10	4
A^v -55 °C	$\bar{2}.6035$	4
(B^v) -55 to	273.73	4
(A^v) 0 °C	$\bar{2}.5653$	4
c_p liq. °K		
c_p vap. 300°K	0.40003	2
400	0.51222	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0058	4
n 600 °K	0.0015	4
o	-0.0_658	4
m' 700 to	0.0920	4
n' 1000 °K	0.0013	4
o'	-0.0_641	4
Surface tension		
dynes/cm. -40°C	17.68	2
γ -30	16.48	2
-20	15.28	2
Parachor [P]		
20°C		
30		
40		
Sugd.	190.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C	-87.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		
Viscosity centistokes		
η -80°C	0.946	2
-60	0.703	2
-10	0.403	2

≠ at saturation pressure T_R = 0.75 T_c + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 6

NAME	n-Pentane			STRUCTURAL FORMULA
Mole % Pur. 99.86	Ref. 2	Molecular Formula C_5H_{12}	Molecular Weight 72.146	$CH_3(CH_2)_3CH_3$

		Ref.
F.P. °C	-129.721	2
F.P. 100%		
B.P. °C		
760 mm	36.074	2
100	-12.59	2
30	-33.93	4
10	-50.1	4
1	-76.63	5
Pressure		
mm 25°C	512.5	4
t_e	825.9	5
Density		
g/ml 20°C	0.62624	2
d_4^t 25	0.62139	2
30	0.61649	4
a	0.64604	4
b	-0.0_3904	4
Ref. Index		
n_D 20°C	1.35748	2
25	1.35472	2
30	1.35194	4
"C"	0.7664	4
MR (Obs.)	25.266	2
MR (Calc.)	25.29	5
(nD-d/2)	1.04436	2
Dielectric	1.843	5
A -35 to	6.85221	2
B 80 °C	1064.63	2
C	232.0	2
A* -35 to	1.18695	5
B* 60 °C	995.37	5
K	24.0	4
c	-0.16075	4
t_x 60 to	185.	4
t_x 160 °C	243.6	5
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 80 to	7.37001	5
Bc t_c °C	1411.3	5
Cc	279.1	5
Cryos. A°	0.04906	2
consts. B°	0.0042	2
t_e °C	38.54	5

		Ref.
dt/dP		
°C/mm		
25°C	0:05257	4
BP	0.03856	2
t_e	0.03631	5
30 mm	0.5334	4
ΔHm cal/g	27.805	2
ΔHv cal/g		
25°C	87.54	2
30 mm	98.53	5
BP	85.38	2
t_e	84.92	5
t_e (d, e)	84.92	5
ΔHv/T_e	19.65	5
d -35 to	92.16	5
e 40 °C	0.1879	5
d' to		
e' °C		
d_c g/ml	0.232	2
v_c ml/g	4.311	2
t_c °C	196.62	2
P_c mm	25316.	2
PV/RT		
25°C	0.9662	5
30 mm	1.0000	5
BP	0.9547	4
t_e	0.9523	5
t_c	0.268	2
ΔHc kcal/m	782.04	2
ΔHf	-41.36	2
ΔFf	-2.25	2
Viscosity		
centistokes		
η 0 °C	0.432	2
10	0.401	2
20	0.375	2
30	0.351	2
B^v -10 to	251.11	4
A^v 40 °C	$\bar{2}.71711$	4
(B^v) -70 to	261.39	4
(A^v) -10 °C	$\bar{2}.67863$	4
c_p liq. °K		
c_p vap. 300°K	0.40016	2
400	0.50633	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0310	4
n 600 °K	0.0014	4
o	$-0.0_6 42$	4
m' 700 to	0.0976	4
n' 1000 °K	0.0012	4
o'	$-0.0_6 41$	4
Surface tension		
dynes/cm. 20°C	16.00	2
γ 30	14.95	2
40	$13.8^{\neq}$	2
Parachor [P]		
20°C	231.0	4
30	231.0	4
40	230.5	4
Sugd.	229.2	5
Exp. L.l.%/wt.	3.6	3
u.	18.6	3
Dispersion	98.0	2
Flash Point °C	-40.0	3
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	727.	1
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		
Viscosity		
centistokes		
η -60°C	0.803	2
-20	0.514	2
-10	0.469	2

$T_R = 0.75\ T_c$ ≠ at saturation pressure   + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

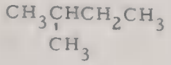
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NFPA 325

No. 7

NAME	2-Methylbutane Isopentane		STRUCTURAL FORMULA
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_5H_{12}	Molecular Weight 72.146



$$\begin{array}{l} CH_3\underset{|}{C}HCH_2CH_3 \\ \quad\;\; CH_3 \end{array}$$

		Ref.
F.P. °C	-159.900	2
F.P. 100%		
B.P. °C		
760 mm	27.852	2
100	-20.14	2
30	-41.10	4
10	-56.9	4
1	-82.8	5
Pressure mm 25°C	688.1	4
t_e	793.8	5
Density g/ml 20°C	0.61967	2
d_4^t 25	0.61462	2
30	0.60951	4
a	0.64050	4
b	-0.0_392	4
Ref. Index		
n_D 20°C	1.35373	2
25	1.35088	2
30	1.34762	4
"C"	0.7661	4
MR (Obs.)	25.292	2
MR (Calc.)	25.290	5
(nD-d/2)	1.04390	2
Dielectric	$1.843^{\neq}$	3
A -45 to	6.78967	2
B 75 °C	1020.012	2
C	233.097	2
A* -45 to	1.15247	5
B* 40 °C	955.73	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 75 to	7.25632	5
Bc t_c °C	1325.2	5
Cc	275.8	5
Cryos. A°	0.04829	2
consts. B°	0.0058	2
t_e °C	29.12	5

		Ref.
dt/dP °C/mm		
25°C	0.0412	4
BP	0.03815	2
t_e	0.0369	5
30 mm	0.5232	4
ΔHm cal/g	17.063	2
ΔHv cal/g		
25°C	81.47	2
30 mm	94.54	5
BP	80.97	2
t_e	80.73	5
t_e (d, e)	80.72	5
$\Delta Hv/T_e$	19.27	5
d -40 to	86.45	5
e 30 °C	0.1968	5
d' to		
e' °C		
d_c g/ml	0.234	2
v_c ml/g	4.269	2
t_c °C	187.8	2
P_c mm	25004.	2
PV/RT		
25°C	0.9478	5
30 mm	1.0000	5
BP	0.9452	4
t_e	0.9438	5
t_c	0.269	2
ΔHc kcal/m	780.12	2
ΔHf	-42.85	2
ΔFf	-3.59	2
Viscosity centistokes		
η -10 °C	0.479	2
0	0.434	2
10	0.396	2
20	0.364	2
B^v -10 to	305.9	4
A^v 30 °C	$\bar{2}.51761$	4
(B^v) -40 to	326.2	4
(A^v) -10 °C	$\bar{2}.55042$	4
c_p liq. °K		
c_p vap. 300°K	0.39559	2
400	0.50578	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0043	4
n	600 °K	0.0015	4
o		-0.0_651	4
m'	700 to	0.1052	4
n'	1000 °K	0.0012	4
o'		-0.0_639	4
Surface tension			
dynes/cm. 20°C		15.00	2
γ 30		13.93#	2
40		12.73	5
Parachor [P]			
20°C		230.0	4
30		229.9	4
40			
Sugd.		229.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		98.6	2
Flash Point °C		-60.	5
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared		Yes	2
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			
Viscosity centistokes			
η -50°C		0.790	2
-20		0.535	2
30		0.337	2

$T_R = 0.75\,T_c$ ≠ 20°C # at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

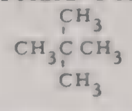
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NBS Circ. 514

No. 8

NAME	2, 2-Dimethylpropane Neopentane	STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_5H_{12}
Molecular Weight 72.146		



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}CH_3$$

		Ref.
F.P. °C	-16.550	2
F.P. 100%		
B.P. °C		
760 mm	9.503	2
100	-36.32	2
30	-56.27	4
10	-71.3	4
1	-95.9	5
Pressure		
mm 25°C	1285.2	4
t_e	750.8	5
Density		
g/ml 20°C	0.5910$^{\neq}$	2
d_4^t 25	0.5851$^{\neq}$	2
30	0.5792	4
a	0.61601	4
b	-0.00102	4
Ref. Index		
n_D 20°C	1.342$^{\neq}$	2
25	1.339$^{\neq}$	2
30	1.335	4
"C"	0.7779	4
MR (Obs.)	25.72$^{\neq}$	2
MR (Calc.)	25.290	5
(nD-d/2)	1.046$^{\neq}$	2
Dielectric	1.801	5
A -60 to	6.73812	2
B 55 °C	950.84	2
C	237.0	2
A* -60 to	1.10831	5
B* 20 °C	886.37	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 55 to	7.23672	5
Bc t_c °C	1261.3	5
Cc	280.8	5
Cryos. A°	0.00595	2
consts. B°		
t_e °C	9.167	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0244	4
BP	0.03652	4
t_e	0.0370	5
30 mm	0.4973	4
ΔHm cal/g	10.786	2
ΔHv cal/g		
25°C	72.15	2
30 mm	86.88	5
BP	75.37	2
t_e	75.43	5
t_e (d, e)	75.43	5
ΔHv/T_e	19.27	5
d -60 to	77.03	5
e 10 °C	0.1750	5
d' to		
e' °C		
d_c g/ml	0.238	2
v_c ml/g	4.200	2
t_c °C	160.60	2
P_c mm	23993.	2
PV/RT		
25°C	0.9321	5
30 mm	1.0000	5
BP	0.9554	4
t_e	0.9557	5
t_c	0.269	2
ΔHc kcal/m	777.37	2
ΔHf	-44.98	2
ΔFf (gas)	-3.66	2
Viscosity		
centistokes		
η -10 °C	0.626	2
-5	0.576	2
0	0.534	2
5	0.498	2
B^v -10 to	484.9	4
A^v 5 °C	$\overline{3}$.95415	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.40487	2
400	0.52047	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0159	4
n 600 °K	0.0016	4
o	$-0.0_{6}62$	4
m' 700 to	0.1199	4
n' 1000 °K	0.0012	4
o'	$-0.0_{6}42$	4
Surface tension		
dynes/cm. 20°C	12.05	5
γ 30	10.98	5
40	9.94	5
Parachor [P]		
20°C		
30		
40		
Sugd.	229.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	98.$^{\neq}$	2
Flash Point °C	-75.	5
Fire Point		
M Spec.	Yes	2
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$ ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 9

NAME	n-Hexane			STRUCTURAL FORMULA
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_6H_{14}	Molecular Weight 86.172	$CH_3(CH_2)_4CH_3$

		Ref.
F.P. °C	-95.348	2
F.P. 100%		
B.P. °C		
760 mm	68.740	2
100	15.81	2
30	-7.44	4
10	-25.1	4
1	-54.0	5
Pressure		
mm 25°C	151.3	4
t_e	914.5	5
Density		
g/ml 20°C	0.65937	2
d_4^t 25	0.65481	2
30	0.65023	4
a	0.67765	4
b	-0.03885	4
Ref. Index		
n_D 20°C	1.37486	2
25	1.37226	2
30	1.36938	4
"C"	0.7607	4
MR (Obs.)	29.907	2
MR (Calc.)	29.908	5
(nD-d/2)	1.04518	2
Dielectric	1.890	3
A -10 to	6.87776	2
B 110 °C	1171.53	2
C	224.366	2
A* -10 to	1.25780	5
B* 100 °C	1098.66	5
K	24.0	5
c	-0.13176	4
t_k 100 to	117.	4
t_x 195 °C	285.6	5
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 110 to	7.31938	4
Bc t_c °C	1483.1	4
Cc	265.9	4
Cryos. A°	0.04956	2
consts. B°	0.0039	2
t_e °C	74.76	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1524	4
BP	0.04191	2
t_e	0.0363	5
30 mm	0.5815	4
ΔHm cal/g	36.137	2
ΔHv cal/g		
25°C	87.50	2
30 mm	93.37	5
BP	80.03	2
t_e	79.01	5
t_e (d, e)	78.98	5
$\Delta Hv/T_e$	19.57	5
d -10 to	92.06	5
e 75 °C	0.1751	5
d' to		
e' °C		
d_c g/ml	0.234	2
v_c ml/g	4.271	2
t_c °C	234.7	2
P_c mm	22739.	2
PV/RT		
25°C	0.9847	5
30 mm	1.0000	5
BP	0.9503	4
t_e	0.9447	5
t_c	0.264	2
ΔHc kcal/m	928.93	2
ΔHf	-47.52	2
ΔFf	-1.03	2
Viscosity		
centistokes		
η 30 °C	0.4389	2
40	0.4085	2
50	0.3817	2
60	0.3577	2
B^v 15 to	297.4	4
A^v 60 °C	$\bar{2}.66156$	4
(B^v) -30 to	309.4	4
(A^v) 15 °C	$\bar{2}.61885$	4
c_p liq. °K		
c_p vap. 300°K	0.39885	2
400	0.50446	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0304	4
n	600 °K	0.0014	4
o		-0.0_643	4
m'	700 to	0.1040	4
n'	1000 °K	0.0012	4
o'		-0.0_640	4
Surface tension			
dynes/cm.	20°C	18.42	2
γ	30	17.38	2
	40	16.36	2
Parachor [P]			
	20°C	271.0	4
	30	270.9	4
	40	270.9	4
	Sugd.	268.2	5
Exp. L.1.%/wt.		3.5	3'
u.		18.0	3'
Dispersion		98.0	2
Flash Point °C		-26.0	3'
Fire Point			
M. Spec.		Yes	1
Ultra V.			
X-Ray Dif.			
Infrared		60.	1
Solubility in $^+$			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			
Viscosity			
centistokes			
η	-20°C	0.691	2
	20	0.4741	2
	70	0.336	2

$T_R = 0.75\ T_c$

$^+$ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

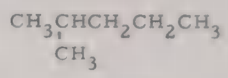
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NBS 514; 3' NFPA 325

No. 10

NAME	2-Methylpentane				STRUCTURAL FORMULA
	Isohexane				
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_6H_{14}		Molecular Weight 86.172	



$$\underset{\displaystyle CH_3}{CH_3\underset{|}{C}HCH_2CH_2CH_3}$$

		Ref.
F.P. °C	-153.670	2
F.P. 100%		
B.P. °C		
760 mm	60.271	2
100	8.06	2
30	-14.82	4
10	-32.1	4
1	-60.55	5
Pressure mm 25°C	211.8	4
t_e	891.5	5
Density g/ml 20°C	0.65315	2
d_4^t 25	0.64852	2
30	0.64386	4
a	0.67177	4
b	-0.0_3890	4
Ref. Index n_D 20°C	1.37145	2
25	1.36873	2
30	1.36586	4
"C"	0.7613	4
MR (Obs.)	29.946	2
MR (Calc.)	29.908	5
(nD-d/2)	1.04488	2
Dielectric	1.881	5
A -15 to	6.83910	2
B 100 °C	1135.410	2
C	226.572	2
A* -15 to	1.22708	5
B* 75 °C	1063.37	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 100 to	7.31635	4
Bc t_c °C	1468.9	4
Cc	271.5	4
Cryos. A°	0.05287	2
consts. B°	0.005	2
t_e °C	65.38	5

		Ref.
dt/dP °C/mm		
25°C	0.1143	4
BP	0.04141	2
t_e	0.0366	5
30 mm	0.5717	4
ΔHm cal/g	17.407	2
ΔHv cal/g		
25°C	82.83	2
30 mm	89.76	5
BP	77.09	2
t_e	76.25	5
t_e (d, e)	76.23	5
ΔHv/T_e	19.41	5
d -15 to	87.26	5
e 65 °C	0.1688	5
d' to		
e' °C		
d_c g/ml	0.235	2
v_c ml/g	4.259	2
t_c °C	224.9	2
P_c mm	22762.	2
PV/RT		
25°C	0.9793	5
30 mm	1.0000	5
BP	0.9512	4
t_e	0.9463	5
t_c	0.269	2
ΔHc kcal/m	927.23	2
ΔHf	-48.82	2
ΔFf	-1.97	2
Viscosity centistokes		
η 0 °C	0.5525	3
20	0.4746	3
30	0.4349	3
B^v -10 to	286.99	4
A^v 40 °C	$\bar{1}.69184$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.40187	2
400	0.51061	2
c_v vap. 388.56°K	0.366	3

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0150	4
n 600 °K	0.0014	4
o	-0.0_650	4
m' 700 to	0.1533	4
n' 1000 °K	0.0011	4
o'	-0.0_635	4
Surface tension dynes/cm. 20°C	17.38	2
γ 30	16.37	2
40	15.36	2
Parachor [P]		
20°C	269.7	4
30	269.7	4
40	269.6	4
Sugd.	268.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.6	2
Flash Point °C	-14.	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

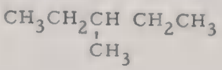
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 ASTM 109

No. 11

NAME	3-Methylpentane		STRUCTURAL FORMULA
Mole % Pur. 99.8	Ref. 3	Molecular Formula C_6H_{14}	Molecular Weight 86.172


$CH_3CH_2\underset{CH_3}{\overset{|}{CH}}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	63.282	2
100	10.53	2
30	-12.61	4
10	-30.1	4
1	-58.87	5
Pressure		
mm 25°C	189.8	4
t_e	902.1	5
Density		
g/ml 20°C	0.66431	2
d_4^t 25	0.65976	2
30	0.65519	4
a	0.68259	4
b	-0.0_388	4
Ref. Index		
n_D 20°C	1.37652	2
25	1.37386	2
30	1.37106	4
"C"	0.7582	4
MR (Obs.)	29.802	2
MR (Calc.)	29.908	5
(nD-d/2)	1.04436	2
Dielectric	1.895	5
A -15 to	6.84887	2
B 105 °C	1152.368	2
C	227.129	2
A* -15 to	1.22845	5
B* 80 °C	1078.38	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 105 to	7.36387	4
Bc t_c °C	1520.0	4
Cc	276.46	4
Cryos. A°		
consts. B°		
t_e °C	68.84	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1262	4
BP	0.04182	2
t_e	0.0366	5
30 mm	0.5781	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.96	2
30 mm	90.29	5
BP	77.88	2
t_e	76.99	5
t_e (d, e)	76.97	5
ΔHv/T_e	19.40	5
d -15 to	88.23	5
e 70 °C	0.1636	5
d' to		
e' °C		
d_c g/ml	0.235	2
v_c ml/g	4.259	2
t_c °C	231.2	2
P_c mm	23431.	2
PV/RT		
25°C	0.9822	5
30 mm	1.0000	5
BP	0.9531	4
t_e	0.9480	5
t_c	0.273	2
ΔHc kcal/m	927.87	2
ΔHf	-48.28	2
ΔFf	-1.34	2
Viscosity centistokes		
η 0 °C	0.5774	3'
15	0.5068	3'
25	0.4653	3'
40	0.4156	3'
B^v -10 to	305.47	4
A^v 50 °C	$\bar{2}.64336$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39885	2
400	0.50446	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0804	4
n 600 °K	0.0014	4
o	-0.0_643	4
m' 700 to	0.0648	4
n' 1000 °K	0.0013	4
o'	-0.0_646	4
Surface tension		
dynes/cm. 20°C	18.12	2
γ 30	17.08	2
40	16.03	2
Parachor [P]		
20°C	267.9	4
30	267.8	4
40	267.6	4
Sugd.	268.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.1	2
Flash Point °C	-35.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

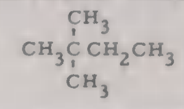
PURIFICATION: API

LITERATURE REFERENCES: 3 ACS 74, 1951 (1952); 3' Timmermans

No. 12

NAME	2, 2-Dimethylbutane Neohexane		
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_6H_{14}	Molecular Weight 86.172

STRUCTURAL FORMULA



$CH_3\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}}CH_2CH_3$

			Ref.
F.P. °C		-99.870	2
F.P. 100%			
B.P. °C	760 mm	49.741	2
	100	-2.0	2
	30	-24.49	4
	10	-41.5	4
	1	-69.3	5
Pressure mm	25°C	319.1	4
	t_e	864.9	5
Density g/ml d_4^t	20°C	0.64916	2
	25	0.64446	2
	30	0.63972	4
a		0.66820	4
b		-0.0_3889	4
Ref. Index n_D	20°C	1.36876	2
	25	1.36595	2
	30	1.36312	4
"C"		0.7608	4
MR (Obs.)		29.935	2
MR (Calc.)		29.908	5
(nD-d/2)		1.04418	2
Dielectric		1.873	5
A	-25 to	6.75483	2
B	95 °C	1081.176	2
C		229.343	2
A*	-25 to	1.14940	5
B*	65 °C	1009.44	5
K			
c			
t_k	to		
t_x	°C		
A'	to		
B'	°C		
C'			
A'*	to		
B'*	°C		
Ac	95 to	7.34293	4
Bc	t_c °C	1494.7	4
Cc		286.2	4
Cryos. consts.	A°	0.002321	2
	B°	0.000	2
t_e °C		53.84	5

			Ref.
dt/dP °C/mm	25°C	0.0814	4
	BP	0.04117	2
	t_e	0.0372	5
	30 mm	0.5619	4
ΔHm cal/g		1.607	2
ΔHv cal/g	25°C	76.79	2
	30 mm	84.62	5
	BP	72.96	2
	t_e	72.32	5
	t_e (d, e)	72.32	5
	ΔHv/T_e	19.06	5
d	-25 to	80.77	5
e	90 °C	0.1571	5
d'	to		
e'	°C		
d_c g/ml		0.240	2
v_c ml/g		4.166	2
t_c °C		216.2	2
P_c mm		23309.	2
PV/RT	25°C	0.9754	5
	30 mm	1.0000	5
	BP	0.9544	4
	t_e	0.9505	5
	t_c	0.274	2
ΔHc kcal/m		924.53	2
ΔHf		-51.00	2
ΔFf		-2.90	2
Viscosity centistokes η	0 °C	0.7144	3
	20	0.5777	3
	25	0.5446	3
	30	0.5158	3
B^v	-10 to	390.6	4
A^v	40 °C	$\bar{2}.42425$	4
(B^v)	to		
(A^v)	°C		
c_p liq.	°K		
c_p vap.	300 °K	0.39560	2
	400	0.50712	2
c_v vap.			

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0046	4
n	600 °K	0.0014	4
o		-0.0_647	4
m'	700 to	-0.0210	4
n'	1000 °K	0.0016	4
o'		-0.0_664	4
Surface tension dynes/cm. γ	20°C	16.30	2
	30	15.31	2
	40	14.33	2
Parachor [P]	20°C	267.2	4
	30	267.2	4
	40	267.1	4
	Sugd.	268.2	5
Exp. L.l.%/wt. u.			
Dispersion		99.8	2
Flash Point °C		-47.	5
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared		Yes	2
Solubility in +	Acetone	∞	
	Carbon tet.	∞	
	Benzene	∞	
	Ether	∞	
	n-Heptane	∞	
	Ethanol	∞	
	Water		
	Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

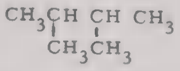
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 Timmermans

No. 13

NAME	2, 3-Dimethylbutane		STRUCTURAL FORMULA
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_6H_{14}	Molecular Weight 86.172



$$\begin{array}{l} CH_3CH\ CH\ CH_3 \\ \quad\ \ CH_3CH_3 \end{array}$$

		Ref.
F. P. °C	-128.538	2
F. P. 100%		
B. P. °C		
760 mm	57.988	2
100	5.45	2
30	-17.53	4
10	-34.9	4
1	-63.37	5
Pressure		
mm 25°C	234.6	4
t_e	887.5	5
Density		
g/ml 20°C	0.66164	2
d_4^t 25	0.65702	2
30	0.65237	4
a	0.68026	4
b	-0.0_3885	4
Ref. Index		
n_D 20°C	1.37495	2
25	1.37231	2
30	1.36939	4
"C"	0.7583	5
MR (Obs.)	29.810	2
MR (Calc.)	29.908	5
(nD-d/2)	1.04413	2
Dielectric	1.890	5
A -20 to	6.80983	2
B 100 °C	1127.187	2
C	228.900	2
A* -20 to	1.19420	5
B* 75 °C	1053.55	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 100 to	7.30917	4
Bc t_c °C	1481.8	4
Cc	277.4	4
Cryos. A°	0.00467	2
consts. B°		
t_e °C	62.99	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1059	4
BP	0.04173	2
t_e	0.0370	5
30 mm	0.5738	4
ΔHm cal/g	2.251	2
ΔHv cal/g		
25°C	80.77	2
30 mm	87.57	5
BP	75.65	2
t_e	74.87	5
t_e (d, e)	74.86	5
ΔHv/T_e	19.19	5
d -20 to	84.80	5
e 65 °C	0.1578	5
d' to		
e' °C		
d_c g/ml	0.241	2
v_c ml/g	4.154	2
t_c °C	227.1	2
P_c mm	23552.	2
PV/RT		
25°C	0.9800	5
30 mm	1.0000	5
BP	0.9535	4
t_e	0.9489	5
t_c	0.270	2
ΔHc kcal/m	926.40	2
ΔHf	-49.48	2
ΔFf	-1.69	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39177	2
400	0.50248	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0058	4
n 600 °K	0.0015	4
o	-0.0_654	4
m' 700 to	0.0686	4
n' 1000 °K	0.0013	4
o'	-0.0_646	4
Surface tension		
dynes/cm. 20°C	17.37	2
γ 30	16.37	2
40	15.37	2
Parachor [P]		
20°C	266.3	4
30	266.2	4
40	266.1	4
Sugd.	268.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	98.3	2
Flash Point °C	-37.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 14

NAME	n-Heptane			**STRUCTURAL FORMULA** $CH_3(CH_2)_5CH_3$
Mole % Pur. 99.94	Ref. 2	Molecular Formula C_7H_{16}	Molecular Weight 100 198	

		Ref.
F.P. °C	-90.610	2
F.P. 100%		
B.P. °C		
760 mm	98.427	2
100	41.772	2
30	16.80	4
10	-2.1	2
1	-33.2	4
Pressure		
mm 25°C	45.81	4
t_e	988.01	5
Density		
g/ml 20°C	0.68376	2
d_4^t 25	0.67951	2
30	0.67525	4
a	0.70075	4
b	-0.0_384	4
Ref. Index		
n_D 20°C	1.38764	2
25	1.38511	2
30	1.38250	4
"C"	0.7572	4
MR (Obs.)	34.550	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04576	2
Dielectric	1.924	3
A 15 to	6.90240	2
B 130 °C	1268.115	2
C	216.90	2
A* 15 to	1.33143	5
B* 155 °C	1194.60	5
K	24.	5
c	-0.14584	4
t_k 155 to	157.	4
t_x 220 °C	321.	5
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.3270	5
Bc t_c °C	1581.7	5
Cc	257.6	5
Cryos. A°	0.05065	2
consts. B°	0.0033	2
t_e °C	107.58	5

		Ref.
dt/dP		
°C/mm		
25°C	0.4376	4
BP	0.04479	5
t_e	0.0365	5
30 mm	0.6237	4
ΔHm cal/g	33.474	2
ΔHv cal/g		
25°C	87.18	2
30 mm	89.14	4
BP	75.60	2
t_e	73.96	5
t_e (d, e)	74.08	5
$\Delta Hv/T_e$	19.46	5
d 15 to	91.93	4
e 105 °C	0.1659	4
d' to		
e' °C		
d_c g/ml	0.235	2
v_c ml/g	4.252	2
t_c °C	267.01	2
P_c mm	20528.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9401	4
t_e	0.9326	5
t_c	0.260	2
ΔHc kcal/m	1075.85	2
ΔHf	-53.63	2
ΔFf	0.27	2
Viscosity centistokes		
η 30 °C	0.5586	2
50	0.4752	2
70	0.4118	2
90	0.3624	2
B^v 20 to	344.88	4
A^v 100 °C	$\bar{2}.60962$	4
(B^v) -60 to	391.3	4
(A^v) 20 °C	$\bar{2}.44706$	4
c_p liq. 300 °K	0.39780	5
400	0.50182	5
c_p vap. 300 °K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f 300 to	0.0373	5
g 600 °K	0.0013	5
h	-0.0_639	5
f' to		
g' °K		
h'		
m 300 to	0.0272	4
n 600 °K	0.0014	4
o	-0.0_645	4
m' 700 to	0.1062	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	19.29	5
γ 30	18.34	5
40	17.41	5
Parachor [P]		
20°C		
30		
40		
Sugd.	307.2	5
Exp. L.l. %/wt.	3.4	3'
u.	18.0	3'
Dispersion	97.7	2
Flash Point °C	-3.89	3'
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	593.	1
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

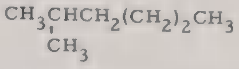
PURIFICATION: API

LITERATURE REFERENCES: 3 NBS Circ. 514; 3' NFPA 325

No. 15

NAME	2-Methylhexane
Mole % Pur.	
Ref.	
Molecular Formula	C_7H_{16}
Molecular Weight	100.198

STRUCTURAL FORMULA



$CH_3CH(CH_3)CH_2(CH_2)_2CH_3$

		Ref.
F.P. °C	-118.276	2
F.P. 100%		
B.P. °C 760 mm	90.052	2
100	34.093	2
30	9.52	4
10	-9.09	4
1	-39.7	5
Pressure mm 25°C	65.88	4
t_e	971.1	5
Density g/ml 20°C	0.67859	2
d_4^t 25	0.67439	2
30	0.67022	4
a	0.69538	4
b	-0.0_3825	4
Ref. Index n_D 20°C	1.38485	2
25	1.38227	2
30	1.37979	4
"C"	0.7576	4
MR (Obs.)	34.591	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04556	2
Dielectric	1.919	3
A 10 to 125 °C	6.87318	2
B	1236.026	2
C	219.545	2
A* 10 to 110 °C	1.30078	5
B*	1161.12	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 125 to	7.31001	4
Bc t_c °C	1555.4	4
Cc	261.5	4
Cryos. consts. A°	0.04605	2
B°	0.0036	2
t_e °C	98.53	5

		Ref.
dt/dP °C/mm 25°C	0.3189	4
BP	0.04431	2
t_e	0.0366	5
30 mm	0.6145	4
ΔHm cal/g	21.907	2
ΔHv cal/g 25°C	83.02	2
30 mm	85.98	5
BP	73.14	2
t_e	71.85	5
t_e (d, e)	71.79	5
ΔHv/T_e	19.37	5
d 10 to	87.50	5
e 100 °C	0.1595	5
d' to		
e' °C		
d_c g/ml	0.234	2
v_c ml/g	4.272	2
t_c °C	257.9	2
P_c mm	20672.	2
PV/RT 25°C	0.9897	5
30 mm	1.0000	5
BP	0.9467	4
t_e	0.9389	5
t_c	0.267	2
ΔHc kcal/m	1074.14	2
ΔHf	-54.93	2
ΔFf	-0.68	2
Viscosity centistokes η 20 °C	0.5570	3'
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 19.38°C	0.5570	3'
c_p vap. 300°K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0272	4
n 600 °K	0.0014	4
o	-0.0_645	4
m' 700 to	0.1062	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension dynes/cm. γ 20°C	19.29	2
30	18.32	2
40	17.36	2
Parachor [P] 20°C	309.6	4
30	309.5	4
40	309.4	4
Sugd.	307.2	5
Exp. L. l. %/wt. u.		
Dispersion	98.5	2
Flash Point °C	-14.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

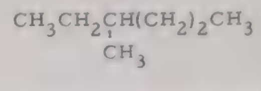
PURIFICATION: API

LITERATURE REFERENCES: 3 NBS 514; 3' Timmermans

No. 16

NAME	3-Methylhexane		
Mole % Pur.	**Ref.**	**Molecular Formula** C_7H_{16}	**Molecular Weight** 100.198

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{CH}(CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	91.850	2
100	35.561	2
30	10.85	4
10	-7.9	2
1	-38.6	5
Pressure mm 25°C	61.59	4
t_e	976.	5
Density g/ml 20°C	0.68713	2
d_4^t 25	0.68295	2
30	0.67877	4
a	0.70384	4
b	-0.0_3822	4
Ref. Index n_D 20°C	1.38864	2
25	1.38609	2
30	1.38351	4
"C"	0.7553	4
MR (Obs.)	34.460	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04508	2
Dielectric	20° 1.93	3
A 10 to 130 °C	6.86764	2
B	1240.196	2
C	219.223	2
A* 10 to 110 °C	1.29292	5
B*	1164.9	5
K		
c		
t_k to t_x °C		
A' to B' °C C'		
A'* to B'* °C		
Ac 130 to t_c °C	7.39633	4
Bc	1635.1	4
Cc	270.8	4
Cryos. consts. A° B°		
t_e °C	100.58	5

		Ref.
dt/dP °C/mm		
25°C	0.3391	4
BP	0.04459	2
t_e	0.0369	5
30 mm	0.6179	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.68	2
30 mm	86.33	5
BP	73.43	2
t_e	72.11	5
t_e (d, e)	72.04	5
$\Delta Hv/T_e$	19.33	5
d 10 to 100 °C	88.05	5
e	0.1592	5
d' to e' °C		
d_c g/ml	0.240	2
v_c ml/g	4.172	2
t_c °C	262.4	2
P_c mm	21356.	2
PV/RT		
25°C	0.9915	5
30 mm	1.0000	5
BP	0.9468	4
t_e	0.9389	5
t_c	0.267	2
ΔHc kcal/m	1074.78	2
ΔHf	-54.35	2
ΔFf	-0.39	2
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m 300 to 600 °K	0.0272	4
n	0.0014	4
o	-0.0_645	4
m' 700 to 1000 °K	0.1062	4
n'	0.0012	4
o'	-0.0_640	4
Surface tension dynes/cm. γ 20°C	19.79	2
30	18.81	2
40	17.85	2
Parachor [P] 20°C	307.7	4
30	307.6	4
40	307.5	4
Sugd.	307.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.4	2
Flash Point °C	-14.	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

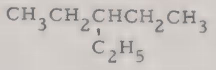
PURIFICATION: API

LITERATURE REFERENCES: 3 NBS 514

No. 17

NAME	3-Ethylpentane		
	Triethylmethane		
Mole % Pur.	Ref.	Molecular Formula C_7H_{16}	Molecular Weight 100.198

STRUCTURAL FORMULA



$$\begin{array}{c}CH_3CH_2\underset{\substack{|\\ C_2H_5}}{CH}CH_2CH_3\end{array}$$

		Ref.
F.P. °C	-118.604	2
F.P. 100%		
B.P. °C		
760 mm	93.475	2
100	36.864	2
30	12.00	4
10	-6.8	4
1	-37.8	5
Pressure		
mm 25°C	58.05	4
t_e	983.0	5
Density		
g/ml 20°C	0.69816	2
d_4^t 25	0.69395	2
30	0.68982	4
a	0.71499	4
b	-0.0_3829	4
Ref. Index		
n_D 20°C	1.39339	2
25	1.39084	2
30	1.38840	4
"C"	0.7519	4
MR (Obs.)	34.283	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04431	2
Dielectric	1.939	3
A 10 to	6.87564	2
B 130 °C	1251.827	2
C	219.887	2
A* 10 to	1.29505	5
B* 115 °C	1174.98	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.29098	4
Bc t_c °C	1561.6	4
Cc	261.0	4
Cryos. A°	0.04807	2
consts. B°	0.0039	2
t_e °C	102.49	5

		Ref.
dt/dP		
°C/mm		
25°C	0.3584	4
BP	0.04482	2
t_e	0.0367	5
30 mm	0.6218	4
ΔHm cal/g	22.775	2
ΔHv cal/g		
25°C	84.02	2
30 mm	86.47	5
BP	73,83	2
t_e	72.81	5
t_e (d, e)	72.43	5
ΔHv/T_e	19.42	5
d 10 to	88.34	5
e 100 °C	0.1552	5
d' to		
e' °C		
d_c g/ml	0.241	2
v_c ml/g	4.152	2
t_c °C	267.6	2
P_c mm	21736.	2
PV/RT		
25°C	0.9917	5
30 mm	1.0000	5
BP	0.9485	4
t_e	0.9404	5
t_c	0.268	2
ΔHc kcal/m	1075.40	2
ΔHf	-53.77	2
ΔFf	1.04	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0272	4
n 600 °K	0.0014	4
o	-0.0_645	4
m' 700 to	0.1062	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	20.44	2
γ 30	19.45	2
40	18.47	2
Parachor [P]		
20°C	305.3	4
30	305.2	4
40	305.2	4
Sugd.	307.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	95.7	2
Flash Point °C	-14.0	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

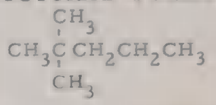
PURIFICATION: API

LITERATURE REFERENCES: 3 NBS Circ. 514

No. 18

NAME	2, 2-Dimethylpentane		
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_7H_{16}	Molecular Weight 100.198

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}CH_2CH_2CH_3$$

		Ref.
F.P. °C	-123.811	2
F.P. 100%		
B.P. °C		
760 mm	79.197	2
100	23.858	2
30	-0.35	4
10	-18.6	4
1	-48.68	5
Pressure		
mm 25°C	105.23	4
t_e	942.7	5
Density		
g/ml 20°C	0.67385	2
d_4^t 25	0.66953	2
30	0.66519	4
a	0.69115	4
b	-0.0_3842	4
Ref. Index		
n_D 20°C	1.38215	2
25	1.37955	2
30	1.37694	4
"C"	0.7580	4
MR (Obs.)	34.617	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04522	2
Dielectric	1.912	3
A 0 to	6.81480	2
B 115 °C	1190.033	2
C	223.303	2
A* 0 to	1.24946	5
B* 95 °C	1115.26	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 115 to	7.50352	4
Bc t_c °C	1705.8	4
Cc	290.5	4
Cryos. A°	0.03140	2
consts. B°	0.0036	2
t_e °C	86.57	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2138	4
BP	0.04394	2
t_e	0.0372	5
30 mm	0.6047	4
ΔHm cal/g	13.892	2
ΔHv cal/g		
25°C	77.36	2
30 mm	81.39	5
BP	69.55	2
t_e	68.44	5
t_e (d, e)	68.45	5
$\Delta Hv/T_e$	19.06	5
d 0 to	81.34	5
e 90 °C	0.1488	5
d' to		
e' °C		
d_c g/ml	0.248	2
v_c ml/g	4.032	2
t_c °C	247.7	2
P_c mm	21584.	2
PV/RT		
25°C	0.9878	5
30 mm	1.0000	5
BP	0.9486	4
t_e	0.9418	5
t_c	0.268	2
ΔHc kcal/m	1071.45	2
ΔHf	-57.05	2
ΔFf	-1.15	2
Viscosity centistokes		
η 20 °C	0.5773	3'
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0272	4
n 600 °K	0.0014	4
o	-0.0_645	4
m' 700 to	0.1062	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	18.02	2
γ 30	17.08	2
40	16.14	2
Parachor [P]		
20°C	306.6	4
30	306.5	4
40	306.4	4
Sugd.	307.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	99.3	2
Flash Point °C	-25.	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

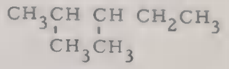
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NBS 514; 3' Ind. Eng. Chem. 38, 338 (1946)

No. 19

NAME	2,3-Dimethylpentane				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula	C_7H_{16}	Molecular Weight 100.198	



$$\begin{array}{l}CH_3\underset{|}{C}H\ \underset{|}{C}H\ CH_2CH_3\\ \quad\ \ CH_3CH_3\end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	89.784	2
100	33.237	2
30	8.43	4
10	-10.3	4
1	-41.19	5
Pressure		
mm 25°C	68.87	4
t_e	974.5	5
Density		
g/ml 20°C	0.69508	2
d_4^t 25	0.69091	2
30	0.68673	4
a	0.71175	4
b	-0.0_3819	4
Ref. Index		
n_D 20°C	1.39196	2
25	1.38945	2
30	1.38696	4
"C"	0.7527	4
MR (Obs.)	34.324	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04442	2
Dielectric	1.939	3
A 5 to	6.85382	2
B 130 °C	1238.017	2
C	221.823	2
A* 5 to	1.27315	5
B* 110 °C	1160.44	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.40013	4
Bc t_c °C	1652.5	4
Cc	276.5	4
Cryos. A°		
consts. B°		
t_e °C	98.49	5

		Ref.
dt/dP °C/mm		
25°C	0.3103	4
BP	0.04482	2
t_e	0.0369	5
30 mm	0.6200	4
ΔHm cal/g		
ΔHv cal/g		
25°C	81.68	2
30 mm	84.58	5
BP	72.48	2
t_e	71.23	5
t_e (d, e)	71.19	5
ΔHv/T_e	19.20	5
d 5 to	85.83	5
e 100 °C	0.1487	5
d' to		
e' °C		
d_c g/ml	0.247	2
v_c ml/g	4.042	2
t_c °C	264.6	2
P_c mm	22192.	2
PV/RT		
25°C	0.9903	5
30 mm	1.0000	5
BP	0.9501	4
t_e	0.9424	5
t_c	0.268	2
ΔHc kcal/m	1073.12	2
ΔHf	-55.81	2
ΔFf	-1.27	2
Viscosity centistokes		
η 15 °C	0.6233	3'
30	0.6000	3'
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0272	4
n 600 °K	0.0014	4
o	-0.0_645	4
m' 700 to	0.1062	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	19.96	2
γ 30	18.98	2
40	18.02	2
Parachor [P]		
20°C	304.8	4
30	304.7	4
40	304.6	4
Sugd.	307.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	96.2	2
Flash Point °C	-16.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

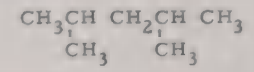
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NBS 514; 3' Timmermans

No. 20

NAME	2, 4-Dimethylpentane		**STRUCTURAL FORMULA**
Mole % Pur.	**Ref.**	**Molecular Formula** C_7H_{16}	**Molecular Weight** 100. 198


$\underset{CH_3}{CH_3CH}\ \underset{CH_3}{CH_2CH}\ CH_3$

		Ref.
F. P. °C	-119. 242	2
F. P. 100%		
B. P. °C		
760 mm	80. 500	2
100	25. 359	2
30	1. 22	4
10	-17. 0	4
1	-47. 0	5
Pressure		
mm 25°C	98. 395	4
t_e	946. 4	5
Density		
g/ml 20°C	0. 67270	2
d^t_4 25	0. 66832	2
30	0. 66393	4
a	0. 69023	4
b	$-0.0_{3}855$	4
Ref. Index		
n_D 20°C	1. 38145	2
25	1. 37882	2
30	1. 37617	4
"C"	0. 7580	4
MR (Obs.)	34. 619	2
MR (Calc.)	34. 526	5
(nD-d/2)	1. 0451	2
Dielectric	1. 914	3
A 0 to	6. 82621	2
B 115 °C	1192. 041	2
C	221. 634	2
A* 0 to	1. 26088	5
B* 100 °C	1117. 86	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 115 to	7. 33247	4
Bc t_c °C	1559. 5	4
Cc	270. 5	4
Cryos. A°	0. 03473	2
consts. B°	0. 0038	2
t_e °C	87. 98	5

		Ref.
dt/dP		
°C/mm		
25°C	0. 2252	4
BP	0. 04376	2
t_e	0. 0369	5
30 mm	0. 6031	4
ΔHm cal/g	16. 318	2
ΔHv cal/g		
25°C	78. 44	2
30 mm	82. 54	5
BP	70. 36	2
t_e	69. 26	5
t_e (d, e)	69. 21	5
ΔHv/T_e	19. 21	5
d 0 to	82. 73	5
e 90 °C	0. 1537	5
d' to		
e' °C		
d_c g/ml	0. 239	2
v_c ml/g	4. 192	2
t_c °C	247. 1	2
P_c mm	20824.	2
PV/RT		
25°C	0. 9865	5
30 mm	1. 0000	5
BP	0. 9487	4
t_e	0. 9418	5
t_c	0. 270	2
ΔHc kcal/m	1072. 44	2
ΔHf	-56. 17	2
ΔFf	-0. 49	2
Viscosity centistokes		
η 15 °C	0. 5538	3'
30	0. 5351	3'
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap 300 °K	0. 39781	2
400	0. 50320	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0. 0272	4
n 600 °K	0. 0014	4
o	$-0.0_{6}45$	4
m' 700 to	0. 1062	4
n' 1000 °K	0. 0012	4
o'	$-0.0_{6}40$	4
Surface tension		
dynes/cm. 20°C	18. 15	2
γ 30	17. 17	2
40	16. 23	2
Parachor [P]		
20°C	307. 6	4
30	307. 5	4
40	307. 5	4
Sugd.	307. 2	5
Exp. L. l. %/wt.		
u.		
Dispersion	98. 6	2
Flash Point °C	-24.	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

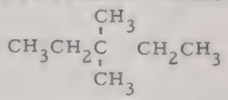
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NBS 514; 3' Timmermans

No. 21

NAME	3, 3-Dimethylpentane		STRUCTURAL FORMULA
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_7H_{16}	Molecular Weight 100.198



$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\ CH_2CH_3$

		Ref.
F. P. °C	-134.46	2
F. P. 100%		
B. P. °C		
760 mm	86.064	2
100	29.241	2
30	4.36	4
10	-14.4	2
1	-45.3	4
Pressure		
mm 25°C	82.84	4
t_e	966.5	5
Density		
g/ml 20°C	0.69327	2
d_4^t 25	0.68908	2
30	0.68488	4
a	0.71004	4
b	-0.0_3820	4
Ref. Index		
n_D 20°C	1.39092	2
25	1.38842	2
30	1.38595	4
"C"	0.7527	4
MR (Obs.)	34.332	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04428	2
Dielectric	1.937	3
A 5 to	6.82667	2
B 130 °C	1228.663	2
C	225.316	2
A* 5 to	1.24360	5
B* 105 °C	1149.27	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.55060	4
Bc t_c °C	1795.1	4
Cc	299.3	4
Cryos. A°	0.04418	2
consts. B°	0.0040	2
t_e °C	94.53	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2674	4
BP	0.04509	2
t_e	0.0374	5
30 mm	0.6215	4
ΔHm cal/g	16.857	2
ΔHv cal/g		
25°C	78.76	2
30 mm	81.94	4
BP	70.71	2
t_e	69.56	5
t_e (d, e)	69.55	5
$\Delta Hv/T_e$	18.95	5
d 0 to	82.54	4
e 100 °C	0.1375	4
d' to		
e' °C		
d_c g/ml	0.239	3'
v_c ml/g	4.183	3'
t_c °C	263.0	2
P_c mm	22800.	2
PV/RT		
25°C	0.9898	5
30 mm	1.0000	5
BP	0.9520	4
t_e	0.9447	5
t_c		
ΔHc kcal/m	1072.57	2
ΔHf	-56.07	2
ΔFf	-0.69	2
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0272	4
n 600 °K	0.0014	4
o	-0.0_645	4
m' 700 to	0.1062	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	19.59	2
γ 30	18.62	2
40	17.67	2
Parachor [P]		
20°C	304.2	4
30	304.1	4
40	304.1	4
Sugd.	307.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.1	2
Flash Point °C	-18.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

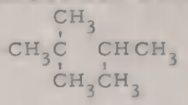
PURIFICATION: API

LITERATURE REFERENCES: 3 NBS 514; 3' ASTM 109

No. 22

NAME	2, 2, 3-Trimethylbutane				
Mole % Pur.		**Ref.**	**Molecular Formula** C_7H_{16}	**Molecular Weight** 100.198	

STRUCTURAL FORMULA



$CH_3\overset{CH_3}{\underset{CH_3}{C}}\;\underset{CH_3}{CH}CH_3$

		Ref.
F.P. °C	-24.912	2
F.P. 100%		
B.P. °C		
760 mm	80.882	2
100	24.469	2
30	-0.18	4
10	-18.8	4
1	-49.3	5
Pressure		
mm 25°C	102.36	4
t_e	951.3	5
Density		
g/ml 20°C	0.69011	2
d_4^t 25	0.68588	2
30	0.68163	4
a	0.70705	4
b	-0.0_3825	4
Ref. Index		
n_D 20°C	1.38944	2
25	1.38692	2
30	1.38433	4
"C"	0.7535	4
MR (Obs.)	34.374	2
MR (Calc.)	34.526	5
(nD-d/2)	1.04438	2
Dielectric	1.930	5
A 0 to	6.79230	2
B 125 °C	1200.563	2
C	226.050	2
A* 0 to	1.21608	5
B* 100 °C	1122.41	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 125 to	7.40100	4
Bc t_c °C	1666.5	4
Cc	288.7	4
Cryos. A°	0.00441	2
consts. B°	0.0033	2
t_e **°C**	88.73	5

		Ref.
dt/dP °C/mm		
25°C	0.2227	4
BP	0.04484	2
t_e	0.0377	5
30 mm	0.6152	4
ΔHm cal/g	5.393	2
ΔHv cal/g		
25°C	76.42	2
30 mm	80.10	5
BP	69.04	2
t_e	67.98	5
t_e (d, e)	67.97	5
ΔHv/T_e	18.82	5
d 0 to	80.08	5
e 90 °C	0.1365	5
d' to		
e' °C		
d_c g/ml	0.254	2
v_c ml/g	3.932	2
t_c °C	258.3	2
P_c mm	22610.	2
PV/RT		
25°C	0.9888	5
30 mm	1.0000	5
BP	0.9516	4
t_e	0.9447	5
t_c	0.269	2
ΔHc kcal/m	1071.78	2
ΔHf	-56.63	2
ΔFf	-0.17	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39781	2
400	0.50320	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0081	4
n 600 °K	0.0015	4
o	-0.0_654	4
m' 700 to	0.1121	4
n' 1000 °K	0.0012	4
o'	-0.0_642	4
Surface tension		
dynes/cm. 20°C	18.76	2
γ 30	17.77	2
40	16.81	2
Parachor [P]		
20°C	302.4	4
30	302.1	4
40	301.9	4
Sugd.	307.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	98.3	2
Flash Point °C	-22.	5
Fire Point		
M Spec.	Yes	2
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 23

NAME	n-Octane		**STRUCTURAL FORMULA** $CH_3(CH_2)_6CH_3$
Mole % Pur. 99.96	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224

		Ref.
F. P. °C	-56.795	2
F. P. 100%		
B. P. °C		
760 mm	125.665	2
100	65.704	2
30	39.28	4
10	19.2	2
1	-14.9	4
Pressure		
mm 25°C	14.036	4
t_e	1064.5	5
Density		
g/ml 20°C	0.70252	2
d_4^t 25	0.69849	2
30	0.69445	4
a	0.71862	4
b	-0.0_3802	4
Ref. Index		
n_D 20°C	1.39743	2
25	1.39505	2
30	1.39269	4
"C"	0.7547	4
MR (Obs.)	39.192	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04617	2
Dielectric	1.948	3
A 40 to	6.92377	2
B 155 °C	1355.126	2
C	209.517	2
A* 40 to	1.38276	4
B* 150 °C	1278.24	4
K	24.	5
c	0.14684	4
t_k 150 to	190.	4
t_x 250 °C	353.	5
A' 15 to	7.47176	4
B' 40 °C	1641.52	4
C'	234.5	4
A'* 15 to	1.87375	4
B'* 40 °C	1541.29	4
Ac 155 to	7.30712	4
Bc t_c °C	1648.0	4
Cc	246.9	4
Cryos. A°	0.05329	2
consts. B°	0.0031	2
t_e °C	138.25	5

		Ref.
dt/dP		
°C/mm		
25°C	1.2698	5
BP	0.04738	2
t_e	0.0364	5
30 mm	0.6613	4
ΔHm cal/g	43.397	2
ΔHv cal/g		
25°C	86.80	2
30 mm	85.63	5
BP	71.91	2
t_e	70.06	5
t_e (d, e)	70.05	5
$\Delta Hv/T_e$	19.45	5
d 20 to	90.50	4
e 140 °C	0.1479	4
d' to		
e' °C		
d_c g/ml	0.235	2
v_c ml/g	4.255	2
t_c °C	296.2	2
P_c mm	18726.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9411	5
t_e	0.9299	5
t_c	0.256	2
ΔHc kcal/m	1222.77	2
ΔHf	-59.74	2
ΔFf	1.58	2
Viscosity centistokes		
η 60 °C	0.5353	2
80	0.4602	2
100	0.4022	2
120	0.3560	2
B^v 20 to	392.25	4
A^v 75 °C	$\bar{2}.55168$	4
(B^v) 75	387.11	4
(A^v) 130	$\bar{2}.56694$	4
c_p liq. 20 °C.	0.52	3'
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	21.76	2
γ 30	20.77	2
40	19.80	2
Parachor [P]		
20°C	351.2	4
30	351.2	4
40	351.2	4
Sugd.	346.2	5
Exp. L.1.%/wt.	3.2	3^2
u.	11.3	3^2
Dispersion	98.0	2
Flash Point °C	15.56	3^2
Fire Point		
M. Spec.	Yes	1
Ultra V.		
X-Ray Dif.		
Infrared	Yes	1
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		
Viscosity centistokes		
30°C	0.7005	2
70	0.4950	2

$T_R = 0.75T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

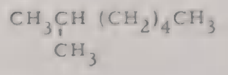
PURIFICATION: API

LITERATURE REFERENCES: 3 NBS Circ. 514; 3' Timmermans; 3^2 NFPA 325

No. 24

NAME	2-Methylheptane		
Mole % Pur.	Ref.	Molecular Formula C_8H_{18}	Molecular Weight 114.224

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{C}H\,(CH_2)_4CH_3$$

		Ref.
F.P. °C	-109.040	2
F.P. 100%		
B.P. °C		
760 mm	117.647	2
100	58.297	2
30	32.15	4
10	12.3	2
1	-21.7	5
Pressure		
mm 25°C	20.637	5
t_e	1052.	5
Density		
g/ml 20°C	0.69792	2
d^t_4 25	0.69392	2
30	0.68991	4
a	0.71390	4
b	-0.0_3794	4
Ref. Index		
n_D 20°C	1.39494	2
25	1.39257	2
30	1.39020	4
"C"	0.7551	4
MR (Obs.)	39.231	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04598	2
Dielectric	1.946	5
A 35 to	6.91735	2
B 150 °C	1337.468	2
C	213.693	2
A* 35 to	1.36848	5
B* 140 °C	1257.10	5
K		
c		
t_k to		
t_x °C		
A' 0 to	7.66293	5
B' 35 °C	1729.19	5
C'	247.4	5
A'* 10 to	2.05206	5
B'* 35 °C	1620.47	5
Ac 150 to	7.24113	4
Bc t_c °C	1581.7	4
Cc	245.3	4
Cryos. A°	0.0458	2
consts. B°		
t_e °C	129.66	5

		Ref.
dt/dP		
°C/mm		
25°C	0.903	4
BP	0.04691	2
t_e	0.0364	5
30 mm	0.6542	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.02	2
30 mm	82.65	5
BP	70.30	2
t_e	68.65	5
t_e (d, e)	68.56	5
ΔHv/T_e	19.46	5
d 25 to	87.30	5
e 130 °C	0.1445	5
d' to		
e' °C		
d_c g/ml	0.234	2
v_c ml/g	4.273	2
t_c °C	288.	2
P_c mm	18848.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9487	4
t_e	0.9386	5
t_c	0.263	2
ΔHc kcal/m	1221.08	2
ΔHf	-60.98	2
ΔFf	0.92	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	20.60	2
γ 30	19.68	2
40	18.77	2
Parachor [P]		
20°C	348.7	4
30	348.8	4
40	348.8	4
Sugd.	346.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.5	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

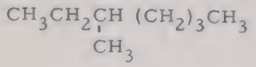
PURIFICATION: API

LITERATURE REFERENCES:

No. 25

NAME	3-Methylheptane		
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224

STRUCTURAL FORMULA


$$CH_3CH_2\underset{|}{C}H\,(CH_2)_3CH_3 \\ CH_3$$

		Ref.
F.P. °C	-120.500	2
F.P. 100%		
B.P. °C		
760 mm	118.925	2
100	59.358	2
30	33.15	4
10	13.3	2
1	-21.0	5
Pressure		
mm 25°C	19.582	4
t_e	1070.6	5
Density		
g/ml 20°C	0.70582	2
d_4^t 25	0.70175	2
30	0.69767	4
a	0.72208	4
b	-0.0_3809	4
Ref. Index		
n_D 20°C	1.39848	2
25	1.39610	2
30	1.39374	4
"C"	0.7531	4
MR (Obs.)	39.100	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04557	2
Dielectric	1.956	5
A 30 to	6.89944	2
B 150 °C	1331.530	2
C	212.414	2
A* 30 to	1.33027	5
B* 140 °C	1246.6	5
K		
c		
t_k to		
t_x °C		
A' 0 to	7.77698	5
B' 30 °C	1797.39	5
C'	252.16	5
A'* 10 to	2.15798	5
B'* 30 °C	1684.52	5
Ac 150 to	7.30319	5
Bc t_c °C	1640.9	5
Cc	252.4	5
Cryos. A°	0.0587	2
consts. B°		
t_e °C	131.67	5

		Ref.
dt/dP		
°C/mm		
25°C	0.9478	5
BP	0.04712	2
t_e	0.0361	5
30 mm	0.6556	4
ΔHm cal/g	23.813	2
ΔHv cal/g		
25°C	83.35.	2
30 mm	83.01	5
BP	71.30	2
t_e	69.60	5
t_e (d, e)	69.56	5
$\Delta Hv/T_e$	19.64	5
d 25 to	87.54	5
e 130 °C	0.1366	5
d' to		
e' °C		
d_c g/ml	0.239	2
v_c ml/g	4.185	2
t_c °C	292.	2
P_c mm	19456.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9601	4
t_e	0.9504	5
t_c	0.264	2
ΔHc kcal/m	1221.76	2
ΔHf	-60.34	2
ΔFf	1.12	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	21.17	2
γ 30	20.24	2
40	19.32	2
Parachor [P]		
20°C	347.2	4
30	347.3	4
40	347.4	4
Sugd.	346.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.5	2
Flash Point °C	6.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

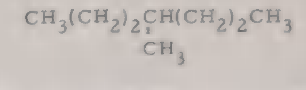
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 26

NAME	4-Methylheptane		STRUCTURAL FORMULA
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224



$CH_3(CH_2)_2\underset{CH_3}{\underset{|}{C}}H(CH_2)_2CH_3$

		Ref.
F.P. °C	-120.955	2
F.P. 100%		
B.P. °C		
760 mm	117.709	2
100	58.347	2
30	32.23	4
10	12.4	2
1	-22.0	4
Pressure		
mm 25°C	20.55	4
t_e	1063.6	5
Density		
g/ml 20°C	0.70463	2
d_4^t 25	0.70055	2
30	0.69646	4
a	0.72093	4
b	-0.0_3810	4
Ref. Index		
n_D 20°C	1.39792	2
25	1.39553	2
30	1.39316	4
"C"	0.7533	4
MR (Obs.)	39.117	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04560	2
Dielectric	1.954	5
A 25 to	6.90065	2
B 150 °C	1327.661	2
C	212.568	2
A* 25 to	1.33746	5
B* 140 °C	1244.16	5
K		
c		
t_k to		
t_x °C		
A' 0 to	7.8970	5
B' 35 °C	1860.28	5
C'	257.54	5
A'* 10 to	2.2715	5
B'* 35 °C	1743.38	5
Ac 150 to	7.31607	4
Bc t_c °C	1645.2	4
Cc	253.5	4
Cryos. A°	0.0563	2
consts. B°		
t_e °C	130.15	5

		Ref.
dt/dP		
°C/mm		
25°C	0.9068	5
BP	0.04695	2
t_e	0.0361	5
30 mm	0.6534	4
ΔHm cal/g	22.675	2
ΔHv cal/g		
25°C	83.01	2
30 mm	82.79	5
BP	70.91	2
t_e	69.23	5
t_e (d, e)	69.18	5
$\Delta Hv/T_e$	19.61	5
d 30 to	87.27	5
e 130 °C	0.1390	5
d' to		
e' °C		
d_c g/ml	0.240	2
v_c ml/g	4.167	2
t_c °C	290.	2
P_c mm	19456.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9575	4
t_e	0.9477	5
t_c	0.264	2
ΔHc kcal/m	1221.89	2
ΔHf	-60.17	2
ΔFf	1.86	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	21.00	2
γ 30	20.07	2
40	19.15	2
Parachor [P]		
20°C	347.1	4
30	347.2	4
40	347.3	4
Sugd.	346.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.5	2
Flash Point °C	6.0	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

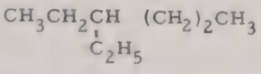
PURIFICATION: API

LITERATURE REFERENCES:

No. 27

NAME	3-Ethylhexane
Mole % Pur.	
Ref.	
Molecular Formula	C_8H_{18}
Molecular Weight	114.224

STRUCTURAL FORMULA



$$CH_3CH_2\underset{C_2H_5}{CH}(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	118.534	2
100	58.902	2
30	32.68	4
10	12.8	2
1	-20.47	5
Pressure mm 25°C	20.03	5
t_e	1080.9	5
Density g/ml 20°C	0.71358	2
d_4^t 25	0.70948	2
30	0.70537	5
a	0.72996	4
b	-0.0_381	4
Ref. Index n_D 20°C	1.40162	2
25	1.39919	2
30	1.39644	5
"C"	0.7498	5
MR (Obs.)	38.944	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04483	2
Dielectric	1.964	5
A 25 to	6.89098	2
B 150 °C	1327.884	2
C	212.595	2
A* 25 to	1.30712	5
B* 140 °C	1239.30	5
K		
c		
t_k to		
t_x °C		
A' 0 to	7.30017	5
B' 35 °C	1529.6	5
C'	230.	5
A'* 10 to	1.72722	5
B'* 35 °C	1437.6	5
Ac 150 to	7.29602	5
Bc t_c °C	1639.8	5
Cc	253.2	5
Cryos. A°		
consts. B°		
t_e °C	131.67	5

		Ref.
dt/dP °C/mm		
25°C	0.9283	4
BP	0.04719	2
t_e	0.0359	5
30 mm	0.6559	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.19	4
30 mm	82.70	5
BP	71.70	2
t_e	70.52	5
t_e (d, e)	70.01	5
ΔHv/T_e	19.88	5
d 30 to	86.88	5
e 130 °C	0.1281	5
d' to		
e' °C		
d_c g/ml	0.245	2
v_c ml/g	4.080	2
t_c °C	294.	5
P_c mm	19914.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9687	4
t_e	0.9596	5
t_c	0.264	2
ΔHc kcal/m	1222.19	2
ΔHf	-59.88	2
ΔFf	1.80	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	21.51	2
γ 30	20.58	2
40	19.64	2
Parachor [P]		
20°C	345.2	4
30	345.1	4
40	344.9	4
Sugd.	346.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	96.4	2
Flash Point °C	-4.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

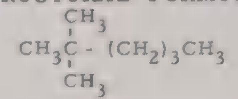
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 28

NAME	2,2-Dimethylhexane		STRUCTURAL FORMULA
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224



$$CH_3\overset{CH_3}{\underset{CH_3}{C}} - (CH_2)_3CH_3$$

		Ref.
F.P. °C	-121.18	2
F.P. 100%		
B.P. °C		
760 mm	106.840	2
100	48.222	2
30	22.54	4
10	3.1	2
1	-28.8	4
Pressure		
mm 25°C	34.05	4
t_e	1033.1	5
Density		
g/ml 20°C	0.69528	2
d_4^t 25	0.69112	2
30	0.68695	4
a	0.71190	4
b	-0.0_3823	4
Ref. Index		
n_D 20°C	1.39349	2
25	1.39104	2
30	1.38850	4
"C"	0.7552	4
MR (Obs.)	39.252	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04585	2
Dielectric	1.942	5
A 20 to	6.83715	2
B 140 °C	1273.594	2
C	215.072	2
A* 20 to	1.28438	5
B* 130 °C	1191.69	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 140 to	7.24434	5
Bc t_c °C	1580.0	5
Cc	256.0	5
Cryos. A°	0.0354	2
consts. B°		
t_e °C	118.07	5

		Ref.
dt/dP		
°C/mm		
25°C	0.5772	4
BP	0.04650	2
t_e	0.0366	5
30 mm	0.6417	4
ΔHm cal/g		
ΔHv cal/g		
25°C	78.02	2
30 mm	79.03	5
BP	67.7	2
t_e	66.23	5
t_e (d, e)	66.19	5
$\Delta Hv/T_e$	19.33	5
d 20 to	82.06	4
e 120 °C	0.1344	4
d' to		
e' °C		
d_c g/ml	0.245	2
v_c ml/g	4.088	2
t_c °C	279.	2
P_c mm	19456.	2
PV/RT		
25°C	0.99147	5
30 mm	1.0000	5
BP	0.9580	4
t_e	0.9490	5
t_c	0.264	2
ΔHc kcal/m	1218.88	2
ΔHf	-62.63	2
ΔFf	0.72	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39891	5
400	0.50224	5
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f 300 to	0.0445	5
g 600 °K	0.0013	5
h	-0.0_637	5
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	19.60	2
γ 30	18.69	2
40	17.80	2
Parachor [P]		
20°C		
30		
40		
Sugd.	346.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	99.7	2
Flash Point °C	-3.	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

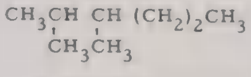
PURIFICATION: API

LITERATURE REFERENCES:

No. 29

NAME	2, 3-Dimethylhexane				
Mole % Pur.		Ref.	Molecular Formula C_8H_{18}	Molecular Weight 114.224	

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\,\underset{CH_3}{CH}\,(CH_2)_2CH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	115.607	2
100	55.965	2
30	29.77	4
10	9.9	2
1	-25.45	4
Pressure mm 25°C	23.44	4
t_e	1066.2	5
Density g/ml 20°C	0.71214	2
d_4^t 25	0.70809	2
30	0.70403	4
a	0.72832	4
b	-0.0_3804	4
Ref. Index n_D 20°C	1.40113	2
25	1.39880	2
30	1.39625	4
"C"	0.7509	4
MR (Obs.)	38.981	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04506	2
Dielectric	1.963	5
A 25 to	6.87004	2
B 150 °C	1315.503	2
C	214.157	2
A* 25 to	1.29661	5
B* 140 °C	1228.9	5
K		
c		
t_k to		
t_x °C		
A' 0 to	8.51379	4
B' 30 °C	2239.64	4
C'	288.51	4
A'* 10 to	2.84821	4
B'* 30 °C	2097.36	4
Ac 150 to	7.27817	5
Bc t_c °C	1630.7	5
Cc	255.6	5
Cryos. A°		
consts. B°		
t_e °C	128.23	5

		Ref.
dt/dP °C/mm		
25°C	0.8131	4
BP	0.04724	2
t_e	0.0363	5
30 mm	0.6548	4
ΔHm cal/g		
ΔHv cal/g		
25°C	81.17	2
30 mm	81.29	4
BP	70.20	2
t_e	68.59	5
t_e (d, e)	68.57	5
ΔHv/T_e	19.52	5
d 30 to	85.14	4
e 130 °C	0.1293	4
d' to		
e' °C		
d_c g/ml	0.248	2
v_c ml/g	4.036	2
t_c °C	293.	2
P_c mm	20216.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9639	4
t_e	0.9546	5
t_c	0.264	2
ΔHc kcal/m	1221.45	2
ΔHf	-60.40	2
ΔFf	2.17	2
Viscosity centistokes η °C		
B_v^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39891	5
400	0.50224	5
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f 300 to	0.0445	5
g 600 °K	0.0013	5
h	-0.0_637	5
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension dynes/cm. γ 20°C	20.99	2
30	20.07	2
40	19.16	2
Parachor [P] 20°C		
30		
40		
Sugd.	346.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	97.0	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

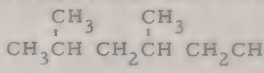
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 30

NAME	2,4-Dimethylhexane				STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula C_8H_{18}	Molecular Weight 114.224	



$$\overset{CH_3}{CH_3CH}\ CH_2\overset{CH_3}{CH}\ CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	109.429	2
100	50.585	2
30	24.77	4
10	5.2	2
1	-26.9	4
Pressure mm 25°C	30.35	4
t_e	1042.0	5
Density g/ml 20°C	0.70036	2
d_4^t 25	0.69620	2
30	0.69203	4
a	0.71698	4
b	$-0.0_{3}824$	4
Ref. Index n_D 20°C	1.39534	2
25	1.39291	2
30	1.39050	4
"C"	0.7533	4
MR (Obs.)	39.130	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04516	2
Dielectric	1.947	5
A 15 to 145 °C	6.85305	2
B	1287.876	2
C	214.790	2
A* 15 to 130 °C	1.29519	5
B*	1204.86	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 145 to t_c °C	7.29625	5
Bc	1624.8	5
Cc	258.9	5
Cryos. consts. A°		
B°		
t_e °C	121.02	5

T_R = 0.75 T_c

		Ref.
dt/dP °C/mm		
25°C	0.6388	4
BP	0.04664	2
t_e	0.0365	5
30 mm	0.6451	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.02	2
30 mm	79.82	4
BP	68.5	2
t_e	66.99	5
t_e (d, e)	66.95	5
ΔHv/T_e	19.41	5
d 25 to 120 °C	83.13	4
e	0.1337	4
d' to °C		
e'		
d_c g/ml	0.245	2
v_c ml/g	4.080	2
t_c °C	282.	2
P_c mm	19608.	2
PV/RT		
25°C	0.9907	5
30 mm	1.0000	5
BP	0.9591	4
t_e	0.9501	5
t_c	0.264	2
ΔHc kcal/m	1220.15	2
ΔHf	-61.47	2
ΔFf	0.89	2
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. 300 °K	0.39891	5
400	0.50224	5
c_p vap. 300 °K	0.39703	2
400	0.50217	2
c_v vap.		

			Ref.
f	300 to 600 °K	0.0445	5
g		0.0013	5
h		$-0.0_{6}37$	5
f'	to °K		
g'			
h'			
m	300 to 600 °K	0.0265	4
n		0.0014	4
o		$-0.0_{6}46$	4
m'	700 to 1000 °K	0.1079	4
n'		0.0012	4
o'		$-0.0_{6}40$	4
Surface tension dynes/cm. γ 20°C		20.05	2
30		19.13	2
40		18.22	2
Parachor [P] 20°C			
30			
40			
Sugd.		346.2	5
Exp. L.l. %/wt.			
u.			
Dispersion		97.8	2
Flash Point °C		-2.	5
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared		Yes	2
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

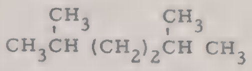
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 31

NAME	2, 5-Dimethylhexane			STRUCTURAL FORMULA
Mole % Pur. 99.99	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224	



$$\begin{matrix} & CH_3 & & CH_3 & \\ CH_3 & CH & (CH_2)_2 & CH & CH_3 \end{matrix}$$

		Ref.
F. P. °C	-91.200	2
F. P. 100%		
B. P. °C		
760 mm	109.103	2
100	50.468	2
30	24.74	4
10	5.3	2
1	-26.76	4
Pressure		
mm 25°C	30.41	4
t_e	1040.3	5
Density		
g/ml 20°C	0.69354	2
d_4^t 25	0.68934	2
30	0.68513	4
a	0.71032	4
b	-0.0_3831	4
Ref. Index		
n_D 20°C	1.39246	2
25	1.39004	2
30	1.38740	4
"C"	0.7552	4
MR (Obs.)	39.260	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04569	2
Dielectric	1.939	5
A 20 to	6.85984	2
B 140 °C	1287.274	2
C	214.412	2
A* 20 to	1.30385	5
B* 130 °C	1204.84	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 140 to	7.23831	5
Bc t_c °C	1570.2	5
Cc	251.5	5
Cryos. A°	0.0467	2
consts. B°		
t_e °C	120.58	5

		Ref.
dt/dP		
°C/mm		
25°C	0.6359	4
BP	0.04646	2
t_e	0.0364	5
30 mm	0.6432	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.21	2
30 mm	80.03	4
BP	68.60	2
t_e	67.08	5
t_e (d, e)	67.04	5
ΔHv/T_e	19.46	5
d 25 to	83.39	4
e 120 °C	0.1355	4
d' to		
e' °C		
d_c g/ml	0.239	2
v_c ml/g	4.185	2
t_c °C	279.	2
P_c mm	19000.	2
PV/RT		
25°C	0.9904	5
30 mm	1.0000	5
BP	0.9585	4
t_e	0.9495	5
t_c	0.264	2
ΔHc kcal/m	1219.37	2
ΔHf	-62.26	2
ΔFf	0.59	2
Viscosity		
centistokes		
η 15 °C	0.7340	3
30	0.6305	3
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39891	5
400	0.50224	5
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f 300 to	0.0445	5
g 600 °K	0.0013	5
h	-0.0_637	5
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	19.73	2
γ 30	18.82	2
40	17.92	2
Parachor [P]		
20°C	346.8	4
30	347.6	4
40		
Sugd.	346.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	99.0	2
Flash Point °C	1.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

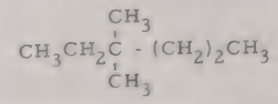
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 Timmermans

No. 32

NAME	3, 3-Dimethylhexane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{18}	Molecular Weight 114.224



$$CH_3CH_2\overset{\overset{CH_3}{|}}{\underset{\underset{CH_3}{|}}{C}} - (CH_2)_2CH_3$$

		Ref.
F.P. °C	-126.10	2
F.P. 100%		
B.P. °C		
760 mm	111.969	2
100	52.16	2
30	25.93	4
10	6.1	2
1	-27.	5
Pressure		
mm 25°C	28.611	5
t_e	1053.406	5
Density		
g/ml 20°C	0.71000	2
d_4^t 25	0.70596	2
30	0.70192	4
a	0.72614	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.40009	2
25	1.39782	2
30	1.39526	4
"C"	0.7513	4
MR (Obs.)	39.009	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04509	2
Dielectric		
A 25 to	6.85121	2
B 140 °C	1307.882	2
C	217.439	2
A* 25 to	1.28231	5
B* 135 °C	1221.27	5
K		
c		
t_k to		
t_x °C		
A' 0 to	7.2390	5
B' 35 °C	1503.4	5
C'	235.	5
A'* 10 to	1.64796	5
B'* 35 °C	1404.8	5
Ac 140 to	7.26174	5
Bc t_c °C	1617.9	5
Cc	257.6	5
Cryos. A°	0.04	2
consts. B°		
t_e °C	124.168	5

		Ref.
dt/dP		
°C/mm		
25°C	0.6825	4
BP	0.04741	2
t_e	0.03679	5
30 mm	0.65557	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.20	4
30 mm	79.15	5
BP	68.5	2
t_e	66.89	5
t_e (d, e)	66.99	5
ΔHv/T_e	19.26	5
d 25 to	82.36	4
e 125 °C	0.1238	4
d' 10 to	80.61	5
e' 25 °C	0.0563	5
d_c g/ml	0.254	2
v_c ml/g	3.940	2
t_c °C	277.9	5
P_c mm	17388.	5
PV/RT		
25°C	1.0000	4
30 mm	1.0000	5
BP	0.96198	4
t_e	0.95282	5
t_c	0.264	2
ΔHc kcal/m	1219.97	2
ΔHf	-61.58	2
ΔFf	1.23	2
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	20.63	2
γ 30	19.72	2
40	18.81	2
Parachor [P]		
20°C	342.9	4
30	343.0	4
40	343.0	4
Sugd.	346.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	97.3	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

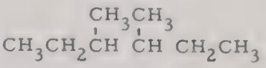
PURIFICATION: API

LITERATURE REFERENCES:

No. 33

NAME	3, 4-Dimethylhexane		
Mole % Pur.	Ref.	Molecular Formula C_8H_{18}	Molecular Weight 114. 224

STRUCTURAL FORMULA



$$CH_3CH_2\overset{CH_3}{CH}\,\overset{CH_3}{CH}\,CH_2CH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	117. 725	2
100	57. 693	2
30	31. 31	4
10	11. 3	2
1	-22. 33	4
Pressure		
mm 25°C	21. 64	4
t_e	1066. 3	5
Density		
g/ml 20°C	0. 71923	2
d_4^t 25	0. 71516	2
30	0. 71108	4
a	0. 73550	4
b	$-0.0_{3}81$	4
Ref. Index		
n_D 20°C	1. 40406	2
25	1. 40180	2
30	1. 39901	4
"C"	0. 7486	4
MR (Obs.)	38. 845	2
MR (Calc.)	39. 144	5
(nD-d/2)	1. 04444	2
Dielectric	1. 971	5
A 30 to	6. 87986	2
B 155 °C	1330. 035	2
C	214. 863	2
A* 30 to	1. 31108	5
B* 140 °C	1244. 36	5
K		
c		
t_k to		
t_x °C		
A' 0 to	7. 27803	5
B' 30 °C	1533. 24	5
C'	233.	5
A'* 10 to	1. 68498	5
B'* 30 °C	1434. 84	5
Ac 155 to	7. 33062	5
Bc t_c °C	1684. 6	5
Cc	261. 3	5
Cryos. A°		
consts. B°		
t_e °C	130. 424	5

		Ref.
dt/dP		
°C/mm		
25°C	0. 8713	4
BP	0. 04752	2
t_e	0. 03643	5
30 mm	0. 6596	4
ΔHm cal/g		
ΔHv cal/g		
25°C	81. 65	2
30 mm	81. 52	5
BP	70. 20	2
t_e	68. 72	5
t_e (d, e)	68. 55	5
$\Delta Hv/T_e$	20. 08	5
d 30 to	85. 63	5
e 130 °C	0. 1310	5
d' to		
e' °C		
d_c g/ml	0. 253	2
v_c ml/g	3. 957	2
t_c °C	298.	2
P_c mm	20824.	2
PV/RT		
25°C	1. 0002	5
30 mm	1. 0000	5
BP	0. 9593	4
t_e	0. 9496	5
t_c	0. 264	2
ΔHc kcal/m	1221. 68	2
ΔHf	-60. 23	2
ΔFf	2. 03	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0. 39891	5
400	0. 50224	5
c_p vap. 300°K	0. 39703	2
400	0. 50217	2
c_v vap.		

		Ref.
f 300 to	0. 0445	5
g 600 °K	0. 0013	5
h	$-0.0_{6}37$	5
f' to		
g' °K		
h'		
m 300 to	0. 0265	4
n 600 °K	0. 0014	4
o	$-0.0_{6}46$	4
m' 700 to	0. 1079	4
n' 1000 °K	0. 0012	4
o'	$-0.0_{6}40$	4
Surface tension		
dynes/cm. 20°C	21. 64	2
γ 30	20. 71	2
40	19. 79	2
Parachor [P]		
20°C	343. 3	4
30	343. 2	4
40	342. 6	4
Sugd.	346. 2	5
Exp. L. l. %/wt.		
u.		
Dispersion	96. 6	2
Flash Point °C	4.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

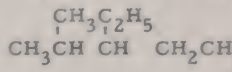
PURIFICATION: API

LITERATURE REFERENCES:

No. 34

NAME	3-Ethyl-2-methylpentane		
Mole % Pur. 99.995	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224

STRUCTURAL FORMULA



$$\begin{array}{l} \quad\;\; CH_3\,C_2H_5 \\ CH_3CH\;CH\;\;CH_2CH_3 \end{array}$$

		Ref.
F.P. °C	-114.960	2
F.P. 100%		
B.P. °C		
760 mm	115.650	2
100	55.712	2
30	29.40	4
10	9.5	2
1	-26.1	4
Pressure		
mm 25°C	23.92	4
t_e	1063.7	5
Density		
g/ml 20°C	0.71932	2
d_4^t 25	0.71522	2
30	0.71111	4
a	0.73571	4
b	-0.0_3814	4
Ref. Index		
n_D 20°C	1.40401	2
25	1.40167	2
30	1.39910	4
"C"	0.7486	4
MR (Obs.)	38.836	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04435	2
Dielectric	1.971	5
A 25 to	6.86358	2
B 150 °C	1318.120	2
C	215.306	2
A* 25 to	1.29252	5
B* 140 °C	1231.73	5
K		
c		
t_k to		
t_x °C		
A' 0 to	8.55861	4
B' 30 °C	2278.23	4
C'	292.312	4
A'* 10 to	2.88842	4
B'* 30 °C	2132.76	4
Ac 150 to	7.40735	5
Bc t_c °C	1749.0	5
Cc	271.2	5
Cryos. A°	0.0544	2
consts. B°		
t_e °C	128.25	5

		Ref.
dt/dP		
°C/mm		
25°C	0.8023	4
BP	0.04748	2
t_e	0.0366	5
30 mm	0.6577	4
ΔHm cal/g		
ΔHv cal/g		
25°C	80.60	2
30 mm	80.74	5
BP	69.70	2
t_e	68.11	5
t_e (d, e)	68.09	5
ΔHv/T_e	19.38	5
d 25 to	84.51	4
e 130 °C	0.1280	4
d' to		
e' °C		
d_c g/ml	0.254	2
v_c ml/g	3.940	2
t_c °C	295.	2
P_c mm	20824.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9618	4
t_e	0.9524	5
t_c	0.264	2
ΔHc kcal/m	1222.11	2
ΔHf	-59.69	2
ΔFf	3.03	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39891	5
400	0.50224	5
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f 300 to	0.0445	5
g 600 °K	0.0013	5
h	-0.0_637	5
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	21.52	2
γ 30	20.58	2
40	19.65	2
Parachor [P]		
20°C		
30		
40		
Sugd.	346.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	96.1	2
Flash Point °C	3.	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

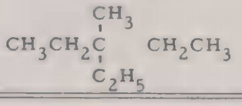
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 35

NAME	3-Ethyl-3-methylpentane					STRUCTURAL FORMULA
Mole % Pur. 99.995	Ref. 2	Molecular Formula C_8H_{18}		Molecular Weight 114.224		



$$CH_3CH_2\overset{\displaystyle CH_3}{\underset{\displaystyle C_2H_5}{C}}\ CH_2CH_3$$

		Ref.
F.P. °C	-90.870	2
F.P. 100%		
B.P. °C		
760 mm	118.259	2
100	57.103	2
30	30.25	4
10	9.9	2
1	-25.9	4
Pressure		
mm 25°C	23.01	5
t_e	1072.7	5
Density		
g/ml 20°C	0.72742	2
d_4^t 25	0.72354	2
30	0.71965	4
a	0.74293	4
b	$-0.0_{3}77$	4
Ref. Index		
n_D 20°C	1.40775	2
25	1.40549	2
30	1.40316	4
"C"	0.7466	4
MR (Obs.)	38.717	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04404	2
Dielectric	1.982	5
A 30 to	6.86731	2
B 160 °C	1347.209	2
C	219.684	2
A* 30 to	1.28717	5
B* 140 °C	1257.01	5
K		
c		
t_k to		
t_x °C		
A' 0 to	8.17016	5
B' 30 °C	2077.18	5
C'	280.096	5
A'* 10 to	2.51548	5
B'* 30 °C	1942.04	5
Ac 160 to	7.49210	5
Bc t_c °C	1864.1	5
Cc	286.7	5
Cryos. A°	0.0392	2
consts. B°		
t_e °C	131.44	5

		Ref.
dt/dP		
°C/mm		
25°C	0.8459	4
BP	0.04844	2
t_e	0.0370	5
30 mm	0.6713	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.49	2
30 mm	79.55	4
BP	69.30	2
t_e	67.75	5
t_e (d, e)	67.76	5
$\Delta Hv/T_e$	19.12	5
d 30 to	83.08	5
e 130 °C	0.1165	5
d' to		
e' °C		
d_c g/ml	0.263	2
v_c ml/g	3.808	2
t_c °C	305.	2
P_c mm	21964.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9625	4
t_e	0.9528	5
t_c	0.265	2
ΔHc kcal/m	1221.20	2
ΔHf	-60.46	2
ΔFf	2.69	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39891	5
400	0.50224	5
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

			Ref.
f	300 to	0.0445	5
g	600 °K	0.0013	5
h		$-0.0_{6}37$	5
f'	to		
g'	°K		
h'			
m	300 to	0.0265	4
n	600 °K	0.0014	4
o		$-0.0_{6}46$	4
m'	700 to	0.1079	4
n'	1000 °K	0.0012	4
o'		$-0.0_{6}40$	4
Surface tension dynes/cm. γ	20°C	21.99	2
	30	21.07	2
	40	20.15	2
Parachor [P]	20°C		
	30		
	40		
	Sugd.	346.2	5
Exp. L.l.%/wt. u.			
Dispersion		95.8	2
Flash Point °C		6.	5
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared		Yes	2
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

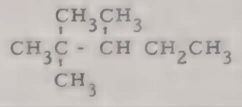
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 36

NAME	2, 2, 3-Trimethylpentane					**STRUCTURAL FORMULA**
Mole % Pur. 99.88	Ref. 2	Molecular Formula C_8H_{18}		Molecular Weight 114.224		


$CH_3\overset{CH_3}{\underset{CH_3}{C}}-\overset{CH_3}{C}H\ CH_2CH_3$

		Ref.
F.P. °C	-112.27	2
F.P. 100%		
B.P. °C		
760 mm	109.841	2
100	49.922	2
30	23.69	4
10	3.9	2
1	-28.7	4
Pressure		
mm 25°C	32.06	4
t_e	1043.0	5
Density		
g/ml 20°C	0.71602	2
d_4^t 25	0.71207	2
30	0.70811	4
a	0.73180	4
b	-0.0_3781	4
Ref. Index		
n_D 20°C	1.40295	2
25	1.40066	2
30	1.39811	4
"C"	0.7500	4
MR (Obs.)	38.925	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04494	2
Dielectric	1.968	5
A 20 to	6.82546	2
B 150 °C	1294.875	2
C	218.420	2
A* 20 to	1.26422	5
B* 130 °C	1209.78	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 150 to	7.29189	5
Bc t_c °C	1663.7	5
Cc	267.9	5
Cryos. A°	0.0401	2
consts. B°		
t_e °C	121.69	5

		Ref.
dt/dP		
°C/mm		
25°C	0.6199	4
BP	0.04755	2
t_e	0.0372	5
30 mm	0.6553	4
ΔHm cal/g		
ΔHv cal/g		
25°C	77.24	2
30 mm	78.00	4
BP	67.30	2
t_e	65.84	5
t_e (d, e)	65.83	5
$\Delta Hv/T_e$	19.05	5
d 25 to	80.94	4
e 120 °C	0.1242	4
d' to		
e' °C		
d_c g/ml	0.261	2
v_c ml/g	3.826	2
t_c °C	294.	2
P_c mm	21432.	2
PV/RT		
25°C	0.9925	5
30 mm	1.0000	5
BP	0.9585	4
t_e	0.9493	5
t_c	0.265	2
ΔHc kcal/m	1219.98	2
ΔHf	-61.44	2
ΔFf	2.22	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39891	5
400	0.50224	5
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f 300 to	0.0445	5
g 600°K	0.0013	5
h	-0.0_637	5
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600°K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000°K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	20.67	2
γ 30	19.77	5
40	18.87	5
Parachor [P]		
20°C		
30		
40		
Sugd.	346.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.2	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

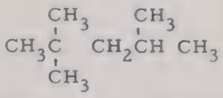
PURIFICATION: API

LITERATURE REFERENCES:

No. 37

NAME	2, 2, 4-Trimethylpentane Isooctane			
Mole % Pur.	Ref.	Molecular Formula C_8H_{18}	Molecular Weight 114.224	

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH_2\overset{CH_3}{CH}\ CH_3$$

		Ref.
F.P. °C	-107.380	2
F.P. 100%		
B.P. °C		
760 mm	99.238	2
100	40.667	2
30	15.05	4
10	-4.3	2
1	-36.1	4
Pressure		
mm 25°C	49.34	4
t_e	1009.4	5
Density		
g/ml 20°C	0.69192	2
d_4^t 25	0.68777	2
30	0.68361	4
a	0.70850	4
b	-0.0_3817	4
Ref. Index		
n_D 20°C	1.39145	2
25	1.38901	2
30	1.38646	5
"C"	0.7552	4
MR (Obs.)	39.262	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04549	2
Dielectric	1.936	5
A 15 to	6.81189	2
B 135 °C	1257.840	2
C	220.735	2
A* 15 to	1.26590	5
B* 120 °C	1175.54	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 135 to	7.27905	5
Bc t_c °C	1612.2	5
Cc	267.7	5
Cryos. A°	0.04031	2
consts. B°	0.0043	2
t_e °C	109.60	5

		Ref.
dt/dP °C/mm		
25°C	0.4226	4
BP	0.04651	2
t_e	0.03732	5
30 mm	0.6398	4
ΔHm cal/g		
ΔHv cal/g		
25°C	73.50	2
30 mm	75.31	4
BP	64.87	2
t_e	63.60	5
t_e (d, e)	63.59	5
$\Delta Hv/T_e$	18.98	5
d 15 to	77.17	5
e 110 °C	0.1240	5
d' to		
e' °C		
d_c g/ml	0.237	2
v_c ml/g	4.220	2
t_c °C	271.15	2
P_c mm	19380.	2
PV/RT		
25°C	0.9910	4
30 mm	1.0000	5
BP	0.9562	4
t_e	0.9478	5
t_c	0.275	2
ΔHc kcal/m	1219.01	2
ΔHf	-61.97	2
ΔFf	1.65	2
Viscosity centistokes		
η 20 °C	0.7259	1
40	0.5958	1
60	0.4999	1
80	0.4270	1
B^v 30 to	400.09	4
A^v 90 °C	$\bar{2}.49766$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0265	4
n 600 °K	0.0014	4
o	-0.0_646	4
m' 700 to	0.1079	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	18.77	2
γ 30	17.88	2
40	16.99	2
Parachor [P]		
20°C		
30		
40		
Sugd.	346.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	100.5	2
Flash Point °C	-12.	3
Fire Point		
M. Spec.	Yes	1
Ultra V.		
X-Ray Dif.		
Infrared	1772.	1
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

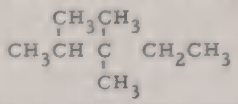
PURIFICATION: API

LITERATURE REFERENCES: 3 NFPA 325

No. 38

NAME	2, 3, 3-Trimethylpentane		
Mole % Pur. 99.87	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224

STRUCTURAL FORMULA



$$\begin{matrix} & CH_3 & CH_3 & \\ CH_3CH & | & C & CH_2CH_3 \\ & & CH_3 & \end{matrix}$$

		Ref.
F. P. °C	-100.70	2
F. P. 100%		
B. P. °C		
760 mm	114.760	2
100	53.815	2
30	27.10	4
10	6.9	2
1	-33.15	4
Pressure mm 25°C	27.00	4
t_e	1060.3	5
Density g/ml 20°C	0.72619	2
d_4^t 25	0.72232	2
30	0.71844	4
a	0.74166	4
b	-0.0_3767	4
Ref. Index n_D 20°C	1.40750	2
25	1.40522	2
30	1.40291	4
"C"	0.7474	4
MR (Obs.)	38.762	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04440	2
Dielectric	1.981	5
A 25 to	6.84353	2
B 160 °C	1328.046	2
C	220.375	2
A* 25 to	1.27011	5
B* 140 °C	1239.27	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 160 to	7.38917	5
Bc t_c °C	1774.2	5
Cc	279.5	5
Cryos. A°	0.0062	2
consts. B°		
t_e °C	127.46	5

		Ref.
dt/dP °C/mm		
25°C	0.7357	4
BP	0.04833	2
t_e	0.0373	5
30 mm	0.6676	4
ΔHm cal/g		
ΔHv cal/g		
25°C	77.87	2
30 mm	78.34	4
BP	68.10	2
t_e	66.61	5
t_e (d, e)	66.62	5
ΔHv/T_e	18.99	5
d 25 to	81.50	5
e 125 °C	0.1168	5
d' to		
e' °C		
d_c g/ml	0.264	2
v_c ml/g	3.791	2
t_c °C	303.	2
P_c mm	22040.	2
PV/RT		
25°C	1.0002	5
30 mm	1.0000	5
BP	0.9607	4
t_e	0.9512	5
t_c	0.266	2
ΔHc kcal/m	1220.86	2
ΔHf	-60.63	2
ΔFf	2.54	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39891	5
400	0.50224	5
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

			Ref.
f	300 to	0.0445	5
g	600 °K	0.0013	5
h		-0.0_637	5
f'	to		
g'	°K		
h'			
m	300 to	0.0265	4
n	600 °K	0.0014	4
o		-0.0_646	4
m'	700 to	0.1079	4
n'	1000 °K	0.0012	4
o'		-0.0_640	4
Surface tension dynes/cm. γ 20°C		21.56	2
30		20.65	2
40		19.75	2
Parachor [P] 20°C			
30			
40			
Sugd.		346.2	5
Exp. L.l.%/wt. u.			
Dispersion		96.1	2
Flash Point °C			
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared		Yes	2
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

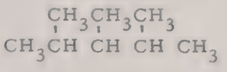
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 39

NAME	2, 3, 4-Trimethylpentane	STRUCTURAL FORMULA



$$\begin{array}{l}\quad\ \ CH_3\,CH_3\,CH_3\\ CH_3CH\ CH\ CH\ CH_3\end{array}$$

Mole % Pur. 99.89	Ref. 2	Molecular Formula C_8H_{18}	Molecular Weight 114.224

		Ref.
F.P. °C		
F.P. 100%	-109.210	2
B.P. °C		
760 mm	113.467	2
100	53.404	2
30	27.06	4
10	7.1	2
1	-25.65	4
Pressure		
mm 25°C	27.01	4
t_e	1051.	5
Density		
g/ml 20°C	0.71906	2
d_4^t 25	0.71503	2
30	0.71099	4
a	0.73517	4
b	$-0.0_{3}80$	4
Ref. Index		
n_D 20°C	1.40422	2
25	1.40198	2
30	1.39931	4
"C"	0.7491	4
MR (Obs.)	38.868	2
MR (Calc.)	39.144	5
(nD-d/2)	1.04469	2
Dielectric	1.972	5
A 25 to	6.85396	2
B 150 °C	1315.084	2
C	217.526	2
A* 25 to	1.29238	5
B* 135 °C	1230.23	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 150 to	7.33497	5
Bc t_c °C	1695.6	5
Cc	267.7	5
Cryos. A°	0.04147	2
consts. B°	0.0035	2
t_e °C	125.62	5

		Ref.
dt/dP °C/mm		
25°C	0.7192	4
BP	0.04761	2
t_e	0.0370	5
30 mm	0.6585	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.52	5
30 mm	79.39	5
BP	68.37	2
t_e	66.45	5
t_e (d, e)	66.82	5
ΔHv/T_e	19.04	5
d 20 to	82.84	5
e 120 °C	0.1276	5
d' to		
e' °C		
d_c g/ml	0.256	2
v_c ml/g	3.913	2
t_c °C	295.	2
P_c mm	20976.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9566	4
t_e	0.9470	5
t_c	0.265	2
ΔHc kcal/m	1220.61	2
ΔHf	-60.98	2
ΔFf	2.54	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0265	4
n	600 °K	0.0014	4
o		$-0.0_{6}46$	4
m'	700 to	0.1079	4
n'	1000 °K	0.0012	4
o'		$-0.0_{6}40$	4
Surface tension			
dynes/cm.	20°C	21.14	2
γ	30	20.22	2
	40	19.31	2
Parachor [P]			
	20°C		
	30		
	40		
	Sugd.	346.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		96.9	2
Flash Point °C		2.	5
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared		Yes	2
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

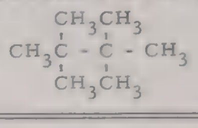
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 40

NAME	2, 2, 3, 3-Tetramethylbutane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{18}	Molecular Weight 114.224



$$\begin{array}{c} CH_3CH_3 \\ CH_3C - C - CH_3 \\ CH_3CH_3 \end{array}$$

		Ref.
F.P. °C	+100.69	2
F.P. 100%		
B.P. °C		
760 mm	106.47	2
100	54.70≠	3
30	31.33≠	2
10	13.09≠	3
1	-18.03≠	3
Pressure mm 25°C	20.854	3
t_e	1035.	5
Density g/ml 23°C	0.8242≠	3'
d_4^t 25	0.8215	3'
30	0.8188	3'
a	0.8352≠	4
b	$-0.0_{3}54$	4
Ref. Index n_D 20°C	1.4695	3'
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	39.144	5
(nD-d/2)		
Dielectric		
A 101 to	6.87665	2
B 160 °C	1327.8	2
C	226.0	2
A* 101 to	1.31013	5
B* 135 °C	1238.8	5
K		
c		
t_k to		
t_x °C		
A' -20 to	7.92864≠	3
B' 101 °C	1709.428	3
C'	233.634	3
A'* -20 to	1.59522	5
B'* 101 °C	1620.5	5
Ac 160 to	8.79823	5
Bc t_c °C	3213.7	5
Cc	438.9	5
Cryos. A° consts. B°	0.00613	2
t_e °C	117.83	5

		Ref.
dt/dP °C/mm		
25°C	0.8149	4
BP	0.0476	3
t_e	0.0373	5
30 mm	0.6604	4
ΔHm cal/g		
ΔHv cal/g		
25°C	89.36#	2
30 mm	75.46	4
BP	66.2	2
t_e	65.02	5
t_e (d, e)	64.92	5
ΔHv/T_e	19.80	5
d 20 to	78.03	5
e 120 °C	0.1113	5
d' to		
e' °C		
d_c g/ml	0.239	2
v_c ml/g	4.189	2
t_c °C	270.8	2
P_c mm	18620.	3
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9599	4
t_e	0.9515	5
t_c	0.262	4
ΔHc kcal/m	1218.59	2
ΔHf	-64.23	2
ΔFf	3.13	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 20°C	0.5893#	3
40	0.497	3
c_p vap. 300°K	0.39703	2
400	0.50217	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	-0.0414	4
n	600 °K	0.0017	4
o		$-0.0_{6}75$	4
m'	700 to	0.1205	4
n'	1000 °K	0.0013	4
o'		$-0.0_{6}46$	4
Surface tension dynes/cm. γ	20°C	21.14	2
	30	20.22	2
	40	19.31	2
Parachor [P]	20°C		
	30		
	40		
	Sugd.	346.2	5
Exp. L.1.%/wt. u. Dispersion			
Flash Point °C Fire Point			
M Spec. Ultra V. X-Ray Dif. Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

≠ solid state # 104.9°C # heat of sublimation $T_R = 0.75\,T_c$ + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API, Lit.

PURIFICATION: API, Lit.

LITERATURE REFERENCES: 3 JACS 74, 883 (1952) D. W. Scott et al; 3' JACS 71, 3447 (1949) Wm. F. Seyer et al.

No. 41

NAME	n-Nonane	STRUCTURAL FORMULA	$CH_3(CH_2)_7CH_3$
Mole % Pur. 99.997	Ref. 2	Molecular Formula C_9H_{20}	Molecular Weight 128.250

		Ref.
F.P. °C	-53.519	2
F.P. 100%		
B.P. °C		
760 mm	150.798	2
100	87.899	2
30	60.16	4
10	39.0	2
1	3.6	5
Pressure		
mm 25°C	4.351	5
t_e	1127.4	5
Density		
g/ml 20°C	0.71763	2
d_4^t 25	0.71381	2
30	0.70999	4
a	0.73290	4
b	$-0.0_{3}762$	4
Ref. Index		
n_D 20°C	1.40542	2
25	1.40311	2
30	1.39984	4
"C"	0.7509	4
MR (Obs.)	43.842	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04660	2
Dielectric	1.972	3
A 60 to	6.93513	2
B 185 °C	1428.811	2
C	201.619	2
A* 60 to	1.43093	4
B* 180 °C	1351.7	4
K	24.	5
c	-0.15644	5
t_k 180 to	227.	5
t_x 270 °C	381.	5
A' 20 to	7.30801	5
B' 60 °C	1630.71	5
C'	219.5	5
A'* 20 to	1.76177	5
B'* 60 °C	1536.61	5
Ac 185 to	7.43583	5
Bc t_c °C	1842.3	5
Cc	254.0	5
Cryos. A°	0.03856	3^2
consts. B°		
t_e °C	166.351	5

		Ref.
dt/dP		
°C/mm		
25°C	3.660	5
BP	0.04967	2
t_e	0.0365	5
30 mm	0.6943	4
ΔHm cal/g	28.83	3^2
ΔHv cal/g		
25°C	86.54	2
30 mm	82.67	4
BP	68.44	4
t_e	66.42	5
t_e (d, e)	66.00	5
$\Delta Hv/T_e$	19.38	5
d 60 to	92.11	4
e 165 °C	0.1570	4
d' 10 to	89.29	4
e' 60 °C	0.1102	4
d_c g/ml	0.244	2
v_c ml/g	4.094	2
t_c °C	322.	2
P_c mm	17279.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9380	4
t_e	0.9482	5
t_c	0.250	2
ΔHc kcal/m	1369.70	2
ΔHf		
ΔFf		
Viscosity		
centistokes		
η 80 °C	0.5502	2
100	0.4743	2
120	0.4151	2
140	0.3675	2
B^v 30 to	437.7	4
A^v 90 °C	$\bar{2}.50135$	4
(B^v) 90 to	427.1	4
(A^v) 150 °C	$\bar{2}.53159$	4
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f 300 to	0.0496	5
g 600 °K	0.0013	5
h	$-0.0_{6}35$	5
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	$-0.0_{6}52$	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	$-0.0_{6}45$	4
Surface tension		
dynes/cm. 20°C	22.92	2
γ 30	21.95	2
40	21.00	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.	3.2	3'
u.	11.8	3'
Dispersion	97.2	2
Flash Point °C	31.0	3'
Fire Point		
M. Spec.	Yes	1
Ultra V.		
X-Ray Dif.		
Infrared	Yes	2
Solubility in +		
Acetone	∞	1
Carbon tet.	∞	1
Benzene	∞	1
Ether	∞	1
n-Heptane	∞	1
Ethanol	∞	1
Water		
Water in		
Viscosity		
centistokes		
40°C	0.7921	2
60	0.6515	2
110	0.4430	2
150	0.3473	2

T_R = 0.77 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NBS Circ. 514; 3' NFPA Circ.; 3^2 JACS 76, 333 (1954) Finke et al.

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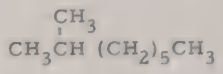
No. 42

NAME	2-Methyloctane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$$CH_3CH(CH_3)(CH_2)_5CH_3$$

		Ref.
F.P. °C	-80.4	2
F.P. 100%		
B.P. °C		
760 mm	143.26	2
100	81.0	2
30	53.15	4
10	32.2	2
1	-2.5	5
Pressure mm 25°C	6.554	5
t_e	1142.	5
Density g/ml 20°C	0.7134	2
d_4^t 25	0.7095	2
30	0.7056	4
a	0.7290	4
b	-0.0_3778	4
Ref. Index n_D 20°C	1.4031	2
25	1.4008	2
30	1.3983	4
"C"	0.7530	4
MR (Obs.)	43.88	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0464	2.
Dielectric	1.969	5
A 50 to	6.9179	2
B 175 °C	1410.0	2
C	206.0	2
A* 50 to	1.3740	5
B* 170 °C	1321.0	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.0924	5
B' 50 °C	1501.9	5
C'	214.3	5
A'* 20 to	1.5590	5
B'* 50 °C	1412.9	5
Ac 175 to	7.39626	5
Bc t_c °C	1799.9	5
Cc	255.7	5
Cryos. A°		
consts. B°		
t_e °C	159.28	5

		Ref.
dt/dP °C/mm		
25°C	2.527	5
BP	0.0494	2
t_e	0.0360	5
30 mm	0.6895	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.2	2
30 mm	79.78	4
BP	68.3	2
t_e	66.31	5
t_e (d, e)	66.26	5
$\Delta Hv/T_e$	19.67	5
d 55 to	86.55	4
e 160 °C	0.1274	4
d' 10 to	86.24	4
e' 55 °C	0.1216	4
d_c g/ml		
v_c ml/g		
t_c °C	311.0	5
P_c mm	16595.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9610	4
t_e	0.9495	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap. 15.6°C	0.381	3

			Ref.
f	300 to	0.0496	5
g	600 °K	0.0013	5
h		-0.0_635	5
f'	to		
g'	°K		
h'			
m	300 to	0.0294	4
n	600 °K	0.0015	4
o		-0.0_652	4
m'	700 to	0.1222	4
n'	1000 °K	0.0013	4
o'		-0.0_645	4
Surface tension dynes/cm. γ	20°C	21.88	2
	30	20.94	2
	40	20.00	2
Parachor [P]	20°C		
	30		
	40		
	Sugd.	385.2	5
Exp. L. l. %/wt.		0.74	3
u.		2.9	3
Dispersion		98.4	2
Flash Point °C		32.	5
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

$T_R = 0.77\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

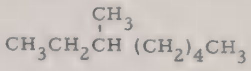
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 ASTM Spec. Tech. Pub. No. 109

No. 43

NAME	3-Methyloctane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	



$CH_3CH_2\overset{CH_3}{CH}(CH_2)_4CH_3$

		Ref.
F.P. °C	-107.6	2
F.P. 100%		
B.P. °C 760 mm	144.18	2
100	81.	2
30	53.71	4
10	33.	2
1	-2.1	5
Pressure mm 25°C	6.367	5
t_e	1149.4	5
Density g/ml 20°C	0.7207	2
d_4^t 25	0.7168	2
30	0.7129	4
a	0.7363	4
b	-0.0_378	4
Ref. Index n_D 20°C	1.4062	2
25	1.4039	2
30	1.4016	4
"C"	0.7508	4
MR (Obs.)	43.73	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0459	2
Dielectric	1.977	5
A 50 to	6.9102	2
B 195 °C	1411.0	2
C	206.0	2
A* 50 to	1.3601	5
B* 170 °C	1320.40	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.0418	5
B' 50 °C	1480.2	5
C'	212.3	5
A'* 20 to	1.5108	5
B'* 50 °C	1392.5	5
Ac 195 to	7.38835	5
Bc t_c °C	1803.0	5
Cc	256.2	5
Cryos. A° consts. B°		
t_e °C	160.52	5

		Ref.
dt/dP °C/mm 25°C	2.595	5
BP	0.04966	4
t_e	0.0360	5
30 mm	0.6920	4
ΔHm cal/g		
ΔHv cal/g 25°C	83.4	2
30 mm	79.76	4
BP	68.5	2
t_e	66.51	5
t_e (d, e)	66.47	5
ΔHv/T_e	19.67	5
d 50 to	86.45	4
e 160 °C	0.1245	4
d' 10 to	86.57	4
e' 50 °C	0.1267	4
d_c g/ml		
v_c ml/g		
t_c °C	313.8	5
P_c mm	16791.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9638	4
t_e	0.9525	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f 300 to	0.0496	5
g 600 °K	0.0013	5
h	-0.0_635	5
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. 20°C	22.34	2
γ 30	21.40	2
40	20.46	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.5	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in + Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

T_R = 0.77 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

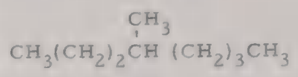
PURIFICATION: API

LITERATURE REFERENCES:

No. 44

NAME	4-Methyloctane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$$CH_3(CH_2)_2\overset{CH_3}{CH}(CH_2)_3CH_3$$

		Ref.
F.P. °C	-113.2	2
F.P. 100%		
B.P. °C		
760 mm	142.48	2
100	80.	2
30	52.53	4
10	32.	2
1	-2.80	5
Pressure		
mm 25°C	6.756	5
t_e	1141.1	5
Density		
g/ml 20°C	0.7199	2
d_4^t 25	0.7160	2
30	0.7121	4
a	0.7355	5
b	-0.0_3778	5
Ref. Index		
n_D 20°C	1.4061	2
25	1.4038	2
30	1.4015	4
"C"	0.7515	4
MR (Obs.)	43.77	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0462	2
Dielectric	1.977	5
A 50 to	6.9155	2
B 165 °C	1406.0	2
C	206.0	2
A* 50 to	1.3714	5
B* 170 °C	1317.0	5
K		
c		
t_k to		
t_x °C		
A' 20 to	6.9689	5
B' 55 °C	1433.8	5
C'	208.5	5
A'* 20 to	1.4441	5
B'* 55 °C	1348.9	5
Ac 165 to	7.39191	5
Bc t_c °C	1794.2	5
Cc	255.6	5
Cryos. A°		
consts. B°		
t_e °C	158.42	5

		Ref.
dt/dP		
°C/mm		
25°C	2.445	5
BP	0.049	2
t_e	0.0360	5
30 mm	0.6882	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.4	2
30 mm	79.63	4
BP	68.2	2
t_e	66.23	5
t_e (d, e)	66.17	5
ΔHv/T_e	19.68	5
d 55 to	86.30	4
e 160 °C	0.1271	4
d' 10 to	86.82	4
e' 55 °C	0.1370	4
d_c g/ml		
v_c ml/g		
t_c °C	311.0	5
P_c mm	16810.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9615	4
t_e	0.9502	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f 300 to	0.0496	5
g 600 °K	0.0013	5
h	-0.0_635	5
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	22.34	2
γ 30	21.40	2
40	20.46	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	97.5	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.77\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

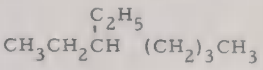
PURIFICATION: API

LITERATURE REFERENCES:

No. 45

NAME	3-Ethylheptane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$CH_3CH_2CH(C_2H_5)(CH_2)_3CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	143.0	2
100	80.3	2
30	52.7	4
10	32.	2
1	-2.65	5
Pressure		
mm 25°C	6.715	5
t_e	1152.5	5
Density		
g/ml 20°C	0.727	2
d_4^t 25	0.723	2
30	0.719	4
a	0.743	4
b	-0.0_3798	4
Ref. Index		
n_D 20°C	1.4093	2
25	1.4070	2
30	1.4045	4
"C"	0.7496	4
MR (Obs.)	43.6	2
MR (Calc.)	43.762	5
(nD-d/2)	1.046	2
Dielectric	1.986	5
A 50 to	6.901	2
B 195 °C	1403.	2
C	206.	2
A* 50 to	1.344	5
B* 170 °C	1311.	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.878	5
B' 55 °C	1391.	5
C'	205.	5
A'* 25 to	1.358	5
B'* 55 °C	1309.	5
Ac 195 to	7.37800	5
Bc t_c °C	1793.5	5
Cc	256.2	5
Cryos. A°		
consts. B°		
t_e °C	159.42	5

		Ref.
dt/dP		
°C/mm		
25°C	2.457	5
BP	0.0496	4
t_e	0.0359	5
30 mm	0.6904	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.5	2
30 mm	79.44	4
BP	68.5	2
t_e	66.55	5
t_e (d, e)	66.51	5
$\Delta Hv/T_e$	19.73	5
d 50 to	85.82	4
e 160 °C	0.1211	4
d' 10 to	87.17	5
e' 50 °C	0.1467	5
d_c g/ml		
v_c ml/g		
t_c °C	313.1	5
P_c mm	16895.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9682	4
t_e	0.9575	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f 300 to	0.0496	5
g 600 °K	0.0013	5
h	-0.0_635	5
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	22.81	2
γ 30	21.87	2
40	20.93	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l. %/wt.		
u.		
Dispersion	96.6	2
Flash Point °C	28.	5
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in $^+$		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.77\ T_c$

$^+$ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

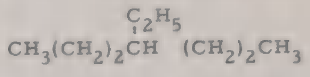
PURIFICATION: API

LITERATURE REFERENCES:

No. 46

NAME	4-Ethylheptane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$$CH_3(CH_2)_2\overset{C_2H_5}{CH}(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	141.2	2
100	79.	2
30	51.4	4
10	31.	2
1	-3.41	5
Pressure mm 25°C	7.174	5
t_e	1147.7	5
Density g/ml 20°C	0.730	2
d_4^t 25	0.726	2
30	0.722	4
a	0.746	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.4096	2
25	1.4073	2
30	1.4049	4
"C"	0.7472	4
MR (Obs.)	43.5	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0446	2
Dielectric	1.987	5
A 50 to	6.905	2
B 190 °C	1397.	2
C	206.	2
A* 50 to	1.350	5
B* 170 °C	1305.	5
K		
c		
t_k to		
t_x °C		
A' 20 to	6.782	5
B' 55 °C	1334.	5
C'	200.	5
A'* 20 to	1.270	5
B'* 55 °C	1255.	5
Ac 190 to	7.38178	5
Bc t_c °C	1785.7	5
Cc	256.0	5
Cryos. A° consts. B°		
t_e °C	157.31	5

		Ref.
dt/dP °C/mm		
25°C	2.3002	5
BP	0.050	2
t_e	0.0358	5
30 mm	0.6864	4
ΔHm cal/g		
ΔHv cal/g		
25°C	83.5	2
30 mm	79.27	4
BP	68.3	2
t_e	66.43	5
t_e (d, e)	66.33	5
$\Delta Hv/T_e$	19.79	5
d 50 to	85.54	4
e 155 °C	0.1221	4
d' 10 to	87.51	4
e' 50 °C	0.1605	4
d_c g/ml		
v_c ml/g		
t_c °C	311.0	5
P_c mm	17072.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9676	4
t_e	0.9582	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

			Ref.
f	300 to	0.0496	5
g	600°K	0.0013	5
h		-0.0_635	5
f'	to		
g'	°K		
h'			
m	300 to	0.0294	4
n	600°K	0.0015	4
o		-0.0_652	4
m'	700 to	0.1222	4
n'	1000°K	0.0013	4
o'		-0.0_645	4
Surface tension dynes/cm. γ	20°C	22.81	2
	30	21.87	2
	40	20.93	2
Parachor [P]	20°C		
	30		
	40		
	Sugd.	385.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		96.6	2
Flash Point °C		26.0	5
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

$T_R = 0.8 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

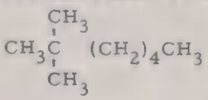
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 47

NAME	2, 2-Dimethylheptane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	



$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ (CH_2)_4CH_3$

		Ref.
F.P. °C	-113.00	2
F.P. 100%		
B.P. °C		
760 mm	132.69	2
100	71.0	4
30	43.82	4
10	23.3	5
1	-11.	5
Pressure		
mm 25°C	11.06	5
t_e	1097.6	5
Density		
g/ml 20°C	0.7105	2
d_4^t 25	0.7066	2
30	0.7027	4
a	0.7261	4
b	$-0.0_{3}78$	4
Ref. Index		
n_D 20°C	1.4016	2
25	1.3993	2
30	1.3964	4
"C"	0.7527	4
MR (Obs.)	43.91	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0464	2
Dielectric		
A 40 to	6.8580	2
B 165 °C	1355.0	2
C	208.00	2
A* 40 to	1.34316	5
B* 155 °C	1272.7	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.02527	5
B' 45 °C	1440.55	5
C'	215.8	5
A'* 10 to	1.4984	5
B'* 45 °C	1352.6	5
Ac 165 to	7.33533	5
Bc t_c °C	1733.9	5
Cc	256.9	5
Cryos. A°	0.042	2
consts. B°		
t_e °C	146.94	5

		Ref.
dt/dP		
°C/mm		
25°C	1.582	5
BP	0.049	2
t_e	0.0368	5
30 mm	0.6775	4
ΔHm cal/g		
ΔHv cal/g		
25°C	78.8	2
30 mm	76.62	4
BP	64.8	2
t_e	63.00	5
t_e (d, e)	62.91	5
ΔHv/T_e	19.23	5
d 45 to	82.44	4
e 145 °C	0.1330	4
d' 10 to	81.70	4
e' 45 °C	0.1160	4
d_c g/ml		
v_c ml/g		
t_c °C	295.2	5
P_c mm	15656.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9506	4
t_e	0.9390	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

			Ref.
f	300 to	0.0496	5
g	600 °K	0.0013	5
h		$-0.0_{6}35$	5
f'	to		
g'	°K		
h'			
m	300 to	0.0294	4
n	600 °K	0.0015	4
o		$-0.0_{6}52$	4
m'	700 to	0.1222	4
n'	1000 °K	0.0013	4
o'		$-0.0_{6}45$	4
Surface tension			
dynes/cm. 20°C		20.80	2
γ 30		19.88	2
40		18.97	2
Parachor [P]			
20°C			
30			
40			
Sugd.		385.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		99.5	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

T_R = 0.77 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

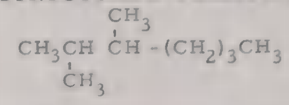
PURIFICATION: API

LITERATURE REFERENCES:

No. 48

NAME	2, 3-Dimethylheptane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,\overset{CH_3}{CH}-(CH_2)_3CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	140.5	2
100	78.	2
30	50.3	4
10	29.4	5
1	-5.18	5
Pressure		
mm 25°C	7.738	5
t_e	1137.3	5
Density		
g/ml 20°C	0.7260	2
d_4^t 25	0.7221	2
30	0.7182	4
a	0.7416	4
b	-0.0_378	4
Ref. Index		
n_D 20°C	1.4085	2
25	1.4062	2
30	1.4042	4
"C"	0.7500	4
MR (Obs.)	43.63	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0455	2
Dielectric	1.984	5
A 50 to	6.887	2
B 175 °C	1392.0	2
C	207.0	2
A* 50 to	1.3421	5
B* 165 °C	1302.4	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.0269	5
B' 50 °C	1464.9	5
C'	213.7	5
A'* 10 to	1.4968	5
B'* 50 °C	1377.	5
Ac 175 to	7.36579	5
Bc t_c °C	1782.3	5
Cc	257.3	5
Cryos. A°		
consts. B°		
t_e °C	156.34	5

		Ref
dt/dP		
°C/mm		
25°C	2.182	5
BP	0.0496	4
t_e	0.0362	5
30 mm	0.6885	4
ΔHm cal/g		
ΔHv cal/g		
25°C	81.6	2
30 mm	78.51	4
BP	67.3	2
t_e	65.44	5
t_e (d, e)	65.33	5
ΔHv/T_e	19.54	5
d 50 to	84.76	4
e 155 °C	0.1242	4
d' 10 to	84.66	4
e' 50 °C	0.1223	4
d_c g/ml		
v_c ml/g		
t_c °C	309.5	5
P_c mm	16649.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9619	4
t_e	0.9517	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f 300 to	0.0496	5
g 600 °K	0.0013	5
h	-0.0_635	5
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	22.34	2
γ 30	21.40	2
40	20.47	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.2	2
Flash Point °C	26.0	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.77\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

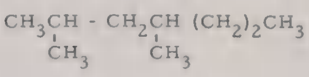
PURIFICATION: API

LITERATURE REFERENCES:

No. 49

NAME	2,4-Dimethylheptane				
Mole % Pur.		Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	

STRUCTURAL FORMULA



$$\underset{\mathrm{CH_3}}{\mathrm{CH_3CH}} - \underset{\mathrm{CH_3}}{\mathrm{CH_2CH}}\ \mathrm{(CH_2)_2CH_3}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	133.5	2
100	71.	2
30	44.23	4
10	23.8	5
1	-9.6	5
Pressure		
mm 25°C	10.738	4
t_e	1131.2	5
Density		
g/ml 20°C	0.716	2
d_4^t 25	0.712	2
30	0.708	4
a	0.732	4
b	-0.0_3796	4
Ref. Index		
n_D 20°C	1.4033	2
25	1.4010	2
30	1.398	4
"C"	0.7501	4
MR (Obs.)	43.7	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0453	2
Dielectric		
A 40 to	6.869	2
B 165 °C	1360.	2
C	208.	2
A* 40 to	1.3129	5
B* 160 °C	1267.	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.7010	5
B' 45 °C	1277.	5
C'	200.	5
A'* 25 to	1.1957	5
B'* 45 °C	1199.	5
Ac 165 to	7.34717	5
Bc t_c °C	1741.6	5
Cc	257.3	5
Cryos. A°		
consts. B°		
t_e °C	148.44	5

		Ref.
dt/dP		
°C/mm		
25°C	1.606	4
BP	0.049	2
t_e	0.0359	5
30 mm	0.6772	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.9	2
30 mm	76.85	5
BP	65.9	2
t_e	64.85	5
t_e (d, e)	64.07	5
$\Delta Hv/T_e$	19.73	5
d 45 to	82.27	4
e 150 °C	0.1226	4
d' 10 to	83.87	5
e' 45 °C	0.1587	5
d_c g/ml		
v_c ml/g		
t_c °C	297.7	5
P_c mm	16179.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9610	5
t_e	0.9642	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	21.30	2
γ 30	20.38	2
40	19.46	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.8	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.77\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

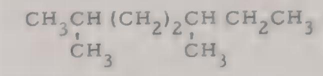
PURIFICATION: API

LITERATURE REFERENCES:

No. 50

NAME	2, 5-Dimethylheptane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}(CH_2)_2\underset{CH_3}{CH}CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	136.0	2
100	74.1	2
30	46.9	4
10	26.2	2
1	-8.4	5
Pressure		
mm 25°C	9.338	5
t_e	1119.5	5
Density		
g/ml 20°C	0.715	2
d_4^t 25	0.711	2
30	0.707	4
a	0.731	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.4038	2
25	1.4015	2
30	1.3989	4
"C"	0.7526	4
MR (Obs.)	43.9	2
MR (Calc.)	43.762	5
(nD-d/2)	1.046	2
Dielectric	1.971	5
A 45 to	6.881	2
B 170 °C	1372.0	2
C	207.	2
A* 45 to	1.3473	5
B* 160 °C	1285.3	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.2515	5
B' 50 °C	1566.6	5
C'	224.4	5
A'* 10 to	1.7094	5
B'* 50 °C	1471.6	5
Ac 185 to	7.35739	5
Bc t_c °C	1753.3	5
Cc	256.0	5
Cryos. A°		
consts. B°		
t_e °C	151.04	5

		Ref.
dt/dP		
°C/mm		
25°C	1.847	5
BP	0.049	2
t_e	0.0362	5
30 mm	0.6802	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.9	2
30 mm	77.80	5
BP	66.4	2
t_e	64.56	5
t_e (d, e)	64.48	5
$\Delta Hv/T_e$	19.52	5
d 45 to	83.80	4
e 150 °C	0.1280	4
d' 10 to	82.29	4
e' 45 °C	0.0957	4
d_c g/ml		
v_c ml/g		
t_c °C	300.7	5
P_c mm	16142.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9591	4
t_e	0.9484	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap.300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f 300 to	0.0496	5
g 600 °K	0.0013	5
h	-0.0_635	5
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	21.30	2
γ 30	20.38	2
40	19.46	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	97.8	2
Flash Point °C	23.0	5
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

T_R = 0.77 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

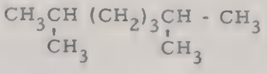
PURIFICATION: API

LITERATURE REFERENCES:

No. 51

NAME	2, 6-Dimethylheptane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$$CH_3\underset{\displaystyle CH_3}{CH}\ (CH_2)_3\underset{\displaystyle CH_3}{CH} - CH_3$$

		Ref.
F.P. °C	-102.9	2
F.P. 100%		
B.P. °C		
760 mm	135.21	2
100	73.35	4
30	46.18	4
10	25.5	4
1	-8.8	5
Pressure		
mm 25°C	9.700	5
t_e	1117.7	5
Density		
g/ml 20°C	0.7089	2
d_4^t 25	0.7049	2
30	0.7009	4
a	0.7249	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.4007	2
25	1.3983	2
30	1.3959	4
"C"	0.7536	4
MR (Obs.)	43.92	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0462	2
Dielectric	1.962	5
A 45 to	6.8725	2
B 170 °C	1366.0	2
C	207.0	2
A* 45 to	1.3392	5
B* 160 °C	1279.4	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.1510	5
B' 50 °C	1510.6	5
C'	220.1	5
A'* 10 to	1.6157	5
B'* 50 °C	1419.0	5
Ac 170 to	7.34814	5
Bc t_c °C	1741.9	5
Cc	255.7	5
Cryos. A°		
consts. B°		
t_e °C	150.20	5

		Ref.
dt/dP °C/mm		
25°C	1.780	5
BP	0.049	2
t_e	0.0363	5
30 mm	0.6793	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.8	2
30 mm	77.55	4
BP	66.2	2
t_e	64.35	5
t_e (d, e)	64.29	5
ΔHv/T_e	19.49	5
d 45 to	83.44	4
e 150 °C	0.1275	4
d' 10 to	82.45	4
e' 45 °C	0.1061	4
d_c g/ml		
v_c ml/g		
t_c °C	298.6	5
P_c mm	15863.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9599	4
t_e	0.9488	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. 300°K	0.39979	5
400	0.50256	5
c_p vap 300°K	0.39649	2
400	0.50136	2
c_v vap.		

			Ref.
f	300 to	0.0496	5
g	600 °K	0.0013	5
h		-0.0_635	5
f'	to		
g'	°K		
h'			
m	300 to	0.0294	4
n	600 °K	0.0015	4
o		-0.0_652	4
m'	700 to	0.1222	4
n'	1000 °K	0.0013	4
o'		-0.0_645	4
Surface tension			
dynes/cm. 20°C		20.83	2
γ 30		19.92	2
40		19.00	2
Parachor [P] 20°C			
30			
40			
Sugd.		385.2	5
Exp. L.1.%/wt.			
u.			
Dispersion		98.9	2
Flash Point °C		22.0	5
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone		∞	
Carbon tet.		∞	
Benzene		∞	
Ether		∞	
n-Heptane		∞	
Ethanol		∞	
Water			
Water in			

T_R = 0.77 Tc

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

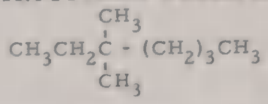
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 52

NAME	3, 3-Dimethylheptane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	



$$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}} - (CH_2)_3CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	137.3	2
100	74.	2
30	46.9	4
10	26.	2
1	-8.4	5
Pressure mm 25°C	9.453	5
t_e	1124.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.7410	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.4085	2
25	1.4062	2
30	1.4037	4
"C"	0.7503	4
MR (Obs.)	43.7	2
MR (Calc.)	43.762	5
(nD-d/2)	1.046	2
Dielectric	1.984	5
A 45 to 170 °C	6.869	2
B	1385.	2
C	210.	2
A* 45 to 160 °C	1.3305	5
B*	1296.	5
K		
c		
t_k to t_x °C		
A' 10 to 50 °C	6.8930	5
B'	1397.4	5
C'	211.1	5
A'* 10 to	1.3696	5
B'* 50 °C	1311.9	5
Ac 170 to t_c °C	7.35298	5
Bc	1779.0	5
Cc	260.9	5
Cryos. consts. A°		
B°		
t_e °C	152.73	5

		Ref.
dt/dP °C/mm		
25°C	1.833	5
BP	0.049	2
t_e	0.0367	5
30 mm	0.6897	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.5	2
30 mm	76.72	5
BP	65.8	2
t_e	64.01	5
t_e (d, e)	63.94	5
ΔHv/T_e	19.28	5
d 45 to 150 °C	82.38	4
e	0.1208	4
d' 10 to 45 °C	82.68	4
e'	0.1271	4
d_c g/ml		
v_c ml/g		
t_c °C	304.5	5
P_c mm	16081.	5
PV/RT		
25°C	1.0001	5
30 mm	1.0000	5
BP	0.9591	5
t_e	0.9484	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0294	4
n	0.0015	4
o	-0.0_652	4
m' 700 to 1000 °K	0.1222	4
n'	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. γ 20°C	22.01	2
30	21.09	2
40	20.17	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	97.4	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.77 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

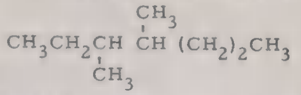
PURIFICATION: API

LITERATURE REFERENCES:

No. 53

NAME	3, 4-Dimethylheptane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{CH}\ \overset{CH_3}{CH}\ (CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	140.6	2
100	78.	2
30	50.31	4
10	29.4	4
1	-5.09	5
Pressure		
mm 25°C	7.742	5
t_e	1147.	5
Density		
g/ml 20°C	0.7314	2
d_4^t 25	0.7275	2
30	0.7236	4
a	0.74699	4
b	-0.0_3777	4
Ref. Index		
n_D 20°C	1.4111	2
25	1.4089	2
30		
"C"	0.7483	4
MR (Obs.)	43.55	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0454	2
Dielectric		
A 50 to	6.897	2
B 175 °C	1400.	2
C	208.0	2
A* 50 to	1.3395	5
B* 165 °C	1306.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.9320	5
B' 50 °C	1418.1	5
C'	209.7	5
A'* 25 to	1.4076	5
B'* 50 °C	1332.9	5
Ac 175 to	7.37833	5
Bc t_c °C	1794.8	5
Cc	258.9	5
Cryos. A°		
consts. B°		
t_e °C	156.83	5

		Ref.
dt/dP		
°C/mm		
25°C	2.178	5
BP	0.050	2
t_e	0.0360	5
30 mm	0.6899	4
ΔHm cal/g		
ΔHv cal/g		
25°C	81.7	2
30 mm	78.35	5
BP	67.8	2
t_e	65.92	5
t_e (d, e)	65.90	5
ΔHv/T_e	19.66	5
d 50 to	84.22	4
e 155 °C	0.1168	4
d' 10 to	85.01	5
e' 50 °C	0.1325	5
d_c g/ml		
v_c ml/g		
t_c °C	311.1	5
P_c mm	16953.	5
PV/RT		
25°C	1.0001	5
30 mm	1.0000	5
BP	0.9692	5
t_e	0.9588	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	22.80	2
γ 30	21.87	2
40	20.94	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	96.8	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.77\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

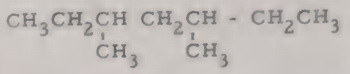
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 54

NAME	3,5-Dimethylheptane				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}		Molecular Weight 128.250	


$CH_3CH_2\underset{CH_3}{CH}\,CH_2\underset{CH_3}{CH}-CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	136.0	2
100	73.9	4
30	46.59	4
10	26.	2
1	-8.	5
Pressure mm 25°C	9.495	5
t_e	1124.	5
Density g/ml 20°C	0.723	2
d_4^t 25	0.719	2
30	0.715	4
a	0.739	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.4067	2
25	1.4044	2
30	1.4021	4
"C"	0.7493	4
MR (Obs.)	43.6	2
MR (Calc.)	43.762	5
(nD-d/2)	1.045	2
Dielectric		
A 45 to	6.878	2
B 160 °C	1375.0	2
C	208.0	2
A* 45 to	1.33769	5
B* 160 °C	1286.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.97157	5
B' 50 °C	1423.06	5
C'	212.4	5
A'* 25 to	1.44661	5
B'* 50 °C	1336.7	5
Ac 160 to	7.2756	5
Bc t_c °C	1681.6	5
Cc	246.8	5
Cryos. A°		
consts. B°		
t_e °C	151.27	5

		Ref.
dt/dP °C/mm		
25°C	1.812	5
BP	0.049	2
t_e	0.0363	5
30 mm	0.6824	4
ΔHm cal/g		
ΔHv cal/g		
25°C	80.1	2
30 mm	77.40	5
BP	66.4	2
t_e	64.57	5
t_e (d, e)	64.52	5
ΔHv/T_e	19.51	5
d 45 to	83.13	4
e 150 °C	0.1230	4
d' 10 to	83.23	5
e' 45 °C	0.1250	5
d_c g/ml		
v_c ml/g		
t_c °C	302.3	5
P_c mm	16335.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9626	5
t_e	0.9519	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. γ 20°C	21.77	2
30	20.85	2
40	19.93	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	96.9	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.77\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

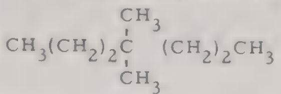
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 55

NAME	4,4-Dimethylheptane				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula	C_9H_{20}	Molecular Weight 128.250	



$$CH_3(CH_2)_2\overset{CH_3}{\underset{CH_3}{C}}(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	135.2	2
100	73.	2
30	45.16	4
10	24.5	5
1	-9.	5
Pressure		
mm 25°C	10.32	5
t_e	1128.	5
Density		
g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.74099	4
b	-0.0_3797	4
Ref. Index		
n_D 20°C	1.4076	2
25	1.4053	2
30	1.4026	4
"C"	0.7485	4
MR (Obs.)	43.6	2
MR (Calc.)	43.762	5
(nD-d/2)	1.045	2
Dielectric		
A 45 to	6.858	2
B 160 °C	1373.	2
C	210.	2
A* 45 to	1.30972	5
B* 160 °C	1281.5	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.62226	5
B' 50 °C	1255.3	5
C'	198.8	5
A'* 25 to	1.11783	5
B'* 50 °C	1178.6	5
Ac 160 to	7.2592	5
Bc t_c °C	1684.1	5
Cc	249.6	5
Cryos. A°		
consts. B°		
t_e °C	150.77	5

		Ref.
dt/dP		
°C/mm		
25°C	1.680	5
BP	0.0496	4
t_e	0.0365	5
30 mm	0.6865	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.5	2
30 mm	76.26	5
BP	65.9	2
t_e	64.05	5
t_e (d, e)	64.11	5
$\Delta Hv/T_e$	19.37	5
d 45 to	81.45	5
e 150 °C	0.1150	5
d' 10 to	83.52	5
e' 45 °C	0.1609	5
d_c g/ml		
v_c ml/g		
t_c °C	301.7	5
P_c mm	15996.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9673	5
t_e	0.9562	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0294	4
n	600 °K	0.0015	4
o		-0.0_652	4
m'	700 to	0.1222	4
n'	1000 °K	0.0013	4
o'		-0.0_645	4
Surface tension			
dynes/cm. 20°C		22.01	2
γ 30		21.09	2
40		20.17	2
Parachor [P]			
20°C			
30			
40			
Sugd.		385.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		97.4	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

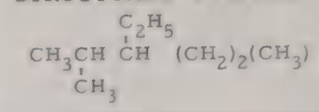
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 56

NAME	3-Ethyl-2-methylhexane				STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	



$$CH_3\underset{CH_3}{CH}\,\overset{C_2H_5}{CH}\,(CH_2)_2(CH_3)$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	138.0	2
100	75.5	4
30	47.98	4
10	27.	2
1	-6.	5
Pressure mm 25°C	8.744	5
t_e	1140.	5
Density g/ml 20°C	0.731	2
d_4^t 25	0.727	2
30	0.723	4
a	0.74699	4
b	-0.0_3797	4
Ref. Index n_D 20°C	1.4120	2
25	1.4097	2
30	1.4059	4
"C"	0.7479	5
MR (Obs.)	43.6	2
MR (Calc.)	43.762	5
(nD-d/2)	1.046	2
Dielectric		
A 45 to 160 °C	6.872	2
B	1381.0	2
C	208.0	2
A* 45 to 165 °C	1.31689	5
B*	1288.5	5
K		
c		
t_k to °C		
t_x		
A' 25 to 50 °C	6.55701	5
B'	1224.4	5
C'	193.1	5
A'* 25 to 50 °C	1.05788	5
B'*	1150.8	5
Ac 160 to t_c °C	7.2707	5
Bc	1691.5	5
Cc	247.5	5
Cryos. A° consts. B°		
t_e °C	153.99	5

		Ref.
dt/dP °C/mm		
25°C	1.929	5
BP	0.050	2
t_e	0.0361	5
30 mm	0.6870	4
ΔHm cal/g		
ΔHv cal/g		
25°C	81.7	2
30 mm	77.57	5
BP	67.1	2
t_e	65.40	5
t_e (d, e)	65.24	5
ΔHv/T_e	19.65	5
d 50 to 155 °C	83.14	4
e	0.1163	4
d' 10 to 50 °C	86.20	5
e'	0.1799	5
d_c g/ml		
v_c ml/g		
t_c °C	306.7	5
P_c mm	16524.	4
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9703	5
t_e	0.9594	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0294	4
n	0.0015	4
o	-0.0_652	4
m' 700 to 1000 °K	0.1222	4
n'	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. γ 20°C	22.80	2
30	21.87	2
40	20.94	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l. %/wt.		
u.		
Dispersion	96.6	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

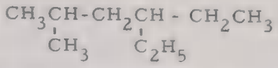
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 57

NAME	4-Ethyl-2-methylhexane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250



$$\underset{\textstyle CH_3}{CH_3CH}-CH_2\underset{\textstyle C_2H_5}{CH}-CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	133.8	2
100	72.0	2
30	44.31	4
10	24.0	2
1	-9.24	4
Pressure mm 25°C	10.719	4
t_e	1127.	5
Density g/ml 20°C	0.723	2
d^t_4 25	0.719	2
30	0.715	4
a	0.73898	4
b	-0.0_3796	4
Ref. Index n_D 20°C	1.4068	2
25	1.4046	2
30	1.4015	4
"C"	0.7486	4
MR (Obs.)	43.7	2
MR (Calc.)	43.762	5
(nD-d/2)	1.045	2
Dielectric		
A 40 to	6.854	2
B 160 °C	1362.	2
C	209.0	2
A* 40 to	1.30397	5
B* 160 °C	1270.45	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.40991	5
B' 45 °C	1146.31	5
C'	188.1	5
A'* 25 to	0.92150	5
B'* 45 °C	1076.64	5
Ac 160 to	7.2532	5
Bc t_c °C	1669.5	5
Cc	248.2	5
Cryos. A°		
consts. B°		
t_e °C	149.23	5

		Ref.
dt/dP °C/mm		
25°C	1.60471	4
BP	0.0490	2
t_e	0.03630	5
30 mm	0.6820	4
ΔHm cal/g		
ΔHv cal/g		
25°C	80.1	2
30 mm	76.35	5
BP	66.4	2
t_e	64.805	5
t_e (d, e)	64.685	5
ΔHv/T_e	19.675	5
d 45 to	81.27	4
e 150 °C	0.1111	4
d' 10 to	84.96	5
e' 45 °C	0.1945	5
d_c g/ml		
v_c ml/g		
t_c °C	299.9	5
P_c mm	16102.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9694	5
t_e	0.9591	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. 20°C	21.77	2
γ 30	20.85	2
40	19.93	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.9	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

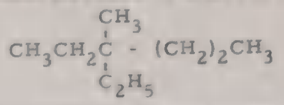
PURIFICATION: API

LITERATURE REFERENCES:

No. 58

NAME	3-Ethyl-3-methylhexane				
Mole % Pur.	Ref.	Molecular Formula	C_9H_{20}	Molecular Weight	128.250

STRUCTURAL FORMULA



$$CH_3CH_2\overset{CH_3}{\underset{C_2H_5}{C}} - (CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	140.6	2
100	77.0	2
30	48.68	4
10	27.0	2
1	-6.75	5
Pressure mm 25°C	8.628	5
t_e	1143.	5
Density g/ml 20°C	0.741	2
d_4^t 25	0.737	2
30	0.733	4
a	0.75699	4
b	$-0.0_{3}797$	4
Ref. Index n_D 20°C	1.4142	2
25	1.4120	2
30	1.4094	4
"C"	0.7438	4
MR (Obs.)	43.3	2
MR (Calc.)	43.762	5
(nD-d/2)	1.044	2
Dielectric		
A 45 to	6.863	2
B 165 °C	1404.0	2
C	212.0	2
A* 45 to	1.30737	5
B* 170 °C	1309.87	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.57634	5
B' 50 °C	1258.52	5
C'	198.1	5
A'* 25 to	1.06948	5
B'* 50 °C	1181.44	5
Ac 165 to	7.2697	5
Bc t_c °C	1728.4	5
Cc	253.4	5
Cryos. A° consts. B°		
t_e °C	157.00	5

		Ref.
dt/dP °C/mm		
25°C	1.991	5
BP	0.050	2
t_e	0.0369	5
30 mm	0.7007	4
ΔHm cal/g		
ΔHv cal/g		
25°C	80.2	2
30 mm	76.37	5
BP	66.6	2
t_e	65.02	5
t_e (d, e)	64.86	5
$\Delta Hv/T_e$	19.39	5
d 50 to	81.55	4
e 155 °C	0.1063	4
d' 10 to	84.24	5
e' 50 °C	0.1617	5
d_c g/ml		
v_c ml/g		
t_c °C	312.5	5
P_c mm	16423.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9654	4
t_e	0.9550	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	$-0.0_{6}52$	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	$-0.0_{6}45$	4
Surface tension dynes/cm. γ 20°C	23.22	2
30	22.30	2
40	21.38	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	95.9	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

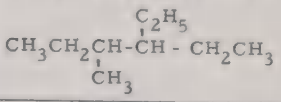
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 59

NAME	4-Ethyl-3-methylhexane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250



$$CH_3CH_2\underset{\displaystyle CH_3}{CH}-\overset{\displaystyle C_2H_5}{CH}-CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	140.4	2
100	77.0	2
30	50.	2
10	29.	2
1	-5.2	5
Pressure		
mm 25°C	8.00593	5
t_e	1147.	5
Density		
g/ml 20°C	0.742	2
d_4^t 25	0.738	2
30	0.734	4
a	0.758	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.416	2
25	1.414	2
30	1.412	4
"C"	0.7459	4
MR (Obs.)	43.4	2
MR (Calc.)	43.762	5
(nD-d/2)	1.045	2
Dielectric		
A 45 to	6.885	2
B 165 °C	1399.	2
C	209.0	2
A* 45 to	1.32622	5
B* 165 °C	1305.13	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.63329	5
B' 50 °C	1271.80	5
C'	197.0	5
A'* 25 to	1.12712	5
B'* 50 °C	1195.27	5
Ac 165 to	7.2865	5
Bc t_c °C	1716.2	5
Cc	249.3	5
Cryos. A°		
consts. B°		
t_e °C F	156.72	5

		Ref.
dt/dP		
°C/mm		
25°C	2.101	5
BP	0.05	2
t_e	0.0362	5
30 mm	0.69251	4
ΔHm cal/g		
ΔHv cal/g		
25°C	81.9	2
30 mm	77.76	5
BP	67.8	2
t_e	66.15	5
t_e (d, e)	66.01	5
ΔHv/T_e	19.73	5
d 50 to	83.22	4
e 155 °C	0.1098	4
d' 10 to	86.09	5
e' 50 °C	0.1676	5
d_c g/ml		
v_c ml/g		
t_c °C	312.3	5
P_c mm	17008.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9694	5
t_e	0.9591	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	23.27	2
γ 30	22.34	2
40	21.40	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	95.5	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

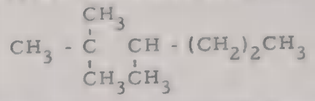
PURIFICATION: API

LITERATURE REFERENCES:

No. 60

NAME	2, 2, 3-Trimethylhexane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$$CH_3-\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}}-\underset{\displaystyle CH_3}{CH}-(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	133.60	2
100	71.0	2
30	43.	2
10	23.	2
1	-11.	5
Pressure		
mm 25°C	11.373	5
t_e	1114.	5
Density		
g/ml 20°C	0.7292	2
d_4^t 25	0.7254	2
30	0.7216	4
a	0.7444	4
b	-0.0_3756	4
Ref. Index		
n_D 20°C	1.4105	2
25	1.4082	2
30		
"C"	0.7494	4
MR (Obs.)	43.62	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0459	2
Dielectric		
A 40 to	6.8448	2
B 160 °C	1366.0	2
C	211.0	2
A* 40 to	1.30918	5
B* 150 °C	1277.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.72059	5
B' 45 °C	1303.5	5
C'	205.1	5
A'* 25 to	1.20927	5
B'* 45 °C	1223.0	5
Ac 160 to	7.2477	4
Bc t_c °C	1678.6	1
Cc	250.9	1
Cryos. A° consts. B°		
t_e °C	148.67	5

		Ref.
dt/dP		
°C/mm		
25°C	1.551	5
BP	0.0490	2
t_e	0.0369	5
30 mm	0.6863	4
ΔHm cal/g		
ΔHv cal/g		
25°C	78.1	2
30 mm	75.47	5
BP	64.8	2
t_e	63.05	5
t_e (d, e)	63.02	5
$\Delta Hv/T_e$	19.17	5
d 45 to	80.62	4
e 150 °C	0.1184	4
d' 10 to	81.66	5
e' 45 °C	0.1423	5
d_c g/ml		
v_c ml/g		
t_c °C	300.9	5
P_c mm	16053.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9601	5
t_e	0.9490	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	21.86	2
γ 30	20.96	2
40	20.06	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l. %/wt.		
u.		
Dispersion	97.3	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.77\ T_C$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

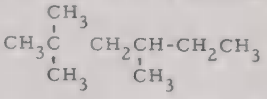
PURIFICATION: API

LITERATURE REFERENCES:

No. 61

NAME	2, 2, 4-Trimethylhexane			
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	

STRUCTURAL FORMULA



$$\begin{array}{l} \quad\ \ CH_3 \\ CH_3\overset{|}{C}\ \ CH_2CH\text{-}CH_2CH_3 \\ \quad\ \ \overset{|}{CH_3}\quad\ \overset{|}{CH_3} \end{array}$$

		Ref.
F. P. °C	-120.0	2
F. P. 100%		
B. P. °C		
760 mm	126.54	2
100	65.	2
30	38.	2
10	17.	2
1	-16.	5
Pressure		
mm 25°C	15.539	5
t_e	1083.	5
Density g/ml 20°C	0.7156	2
d_4^t 25	0.7118	2
30	0.7080	4
a	0.7308	4
b	-0.0_376	4
Ref. Index n_D 20°C	1.4033	2
25	1.4010	2
30	1.3987	4
"C"	0.7512	4
MR (Obs.)	43.76	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0455	2
Dielectric		
A 35 to	6.8391	2
B 150 °C	1344.0	2
C	213.0	2
A* 35 to	1.31004	5
B* 150 °C	1256.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.63114	5
B' 40 °C	1241.8	5
C'	203.3	5
A'* 25 to	1.12734	5
B'* 40 °C	1163.6	5
Ac 150 to	7.2430	5
Bc t_c °C	1651.4	5
Cc	252.1	5
Cryos. A°	0.06	2
consts. B°		
t_e °C	140.65	5

		Ref.
dt/dP °C/mm		
25°C	1.17286	4
BP	0.0490	2
t_e	0.0370	5
30 mm	0.6767	4
ΔHm cal/g		
ΔHv cal/g		
25°C	75.6	2
30 mm	73.75	5
BP	63.4	2
t_e	61.78	5
t_e (d, e)	61.76	5
$\Delta Hv/T_e$	19.14	5
d 40 to	78.13	4
e 140 °C	0.1164	4
d' 10 to	79.26	5
e' 40 °C	0.1463	5
d_c g/ml		
v_c ml/g		
t_c °C	288.7	5
P_c mm	15468.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9601	4
t_e	0.9496	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	20.51	2
γ 30	19.67	2
40	18.83	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	98.8	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.77\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

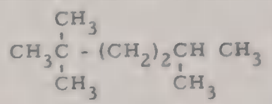
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 62

NAME	2, 2, 5-Trimethylhexane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250



$CH_3\overset{CH_3}{\underset{CH_3}{C}} - (CH_2)_2\underset{CH_3}{CH}\ CH_3$

		Ref.
F. P. °C	-105.780	2
F. P. 100%		
B. P. °C		
760 mm	124.084	2
100	63.092	2
30	36.37	2
10	16.17	2
1	-18.2	5
Pressure		
mm 25°C	16.593	5
t_e	1066.	5
Density		
g/ml 20°C	0.70721	2
d_4^t 25	0.70322	2
30	0.69922	4
a	0.72315	4
b	-0.0_3793	4
Ref. Index		
n_D 20°C	1.39972	2
25	1.39728	2
30	1.39515	4
"C"	0.7538	4
MR (Obs.)	43.935	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04612	2
Dielectric		
A 35 to	6.83531	2
B 145 °C	1324.049	2
C	210.737	2
A* 35 to	1.33661	5
B* 150 °C	1244.71	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.43548	5
B' 40 °C	1637.27	5
C'	238.4	5
A'* 25 to	1.88305	5
B'* 40 °C	1534.28	5
Ac 145 to	7.2339	5
Bc t_c °C	1621.3	5
Cc	248.5	5
Cryos. A°	0.0265	2
consts. B°		
t_e °C	137.04	5

		Ref.
dt/dP		
°C/mm		
25°C	1.109	5
BP	0.04838	2
t_e	0.0372	5
30 mm	0.6676	4
ΔHm cal/g		
ΔHv cal/g		
25°C	74.86	2
30 mm	74.14	5
BP	62.9	2
t_e	61.44	5
t_e (d, e)	61.24	5
$\Delta Hv/T_e$	19.21	5
d 40 to	78.80	4
e 135 °C	0.1281	4
d' 10 to	76.45	5
e' 40 °C	0.0634	5
d_c g/ml		
v_c ml/g		
t_c °C	282.1	5
P_c mm	15064.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9458	4
t_e	0.9347	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	20.04	2
γ 30	19.60	2
40	18.29	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	99.0	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

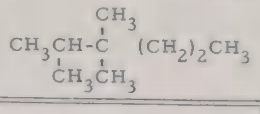
PURIFICATION: API

LITERATURE REFERENCES:

No. 63

NAME	2, 3, 3-Trimethylhexane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA


$CH_3\underset{CH_3}{CH}\text{-}\overset{CH_3}{\underset{CH_3}{C}}\ (CH_2)_2CH_3$

		Ref.
F.P. °C	-116.800	2
F.P. 100%		
B.P. °C 760 mm	137.68	2
100	74.	2
30	46.	2
10	25.	2
1	-9.	5
Pressure mm 25°C	10.01	5
t_e	1130.	5
Density g/ml 20°C	0.738	2
d^t_4 25	0.734	2
30	0.730	4
a	0.754	4
b	-0.0_3797	4
Ref. Index n_D 20°C	1.4141	2
25	1.4119	2
30	1.4092	4
"C"	0.7467	4
MR (Obs.)	43.4	2
MR (Calc.)	43.762	5
(nD-d/2)	1.045	2
Dielectric		
A 45 to 165 °C	6.8474	2
B	1391.0	2
C	213.0	2
A* 45 to 165 °C	1.29980	5
B*	1298.6	5
K		
c		
t_k to °C		
t_x		
A' 25 to 45 °C	6.55736	5
B'	1244.81	5
C'	199.0	5
A'* 25 to 45 °C	1.05181	5
B'*	1167.7	5
Ac 165 to t_c °C	7.2550	5
Bc	1713.7	5
Cc	254.3	5
Cryos. consts. A°	0.0447	2
B°		
t_e °C	153.61	5

		Ref.
dt/dP °C/mm 25°C	1.749	5
BP	0.0505	4
t_e	0.0371	5
30 mm	0.6982	4
ΔHm cal/g		
ΔHv cal/g 25°C	78.7	2
30 mm	75.38	5
BP	65.2	2
t_e	63.43	5
t_e (d, e)	63.43	5
ΔHv/T_e	19.06	5
d 45 to 155 °C	80.49	5
e	0.1110	5
d' 10 to 45 °C	82.65	5
e'	0.1581	5
d_c g/ml		
v_c ml/g		
t_c °C	307.8	5
P_c mm	16059.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9629	5
t_e	0.9517	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0294	4
n	0.0015	4
o	-0.0_652	4
m' 700 to 1000 °K	0.1222	4
n'	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. γ 20°C	22.41	2
30	21.49	2
40	20.59	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt. u.		
Dispersion	96.3	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.77\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

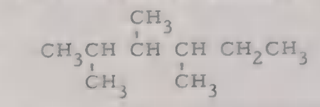
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 64

NAME	2, 3, 4-Trimethylhexane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250



$$CH_3\underset{CH_3}{CH}\,\overset{CH_3}{CH}\,\underset{CH_3}{CH}\,CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	139.0	2
100	76.	2
30	48.	2
10	27.	2
1	-7.	5
Pressure		
mm 25°C	9.000	5
t_e	1144.	5
Density		
g/ml 20°C	0.7392	2
d_4^t 25	0.7354	2
30	0.7316	4
a	0.7544	4
b	-0.0_376	4
Ref. Index		
n_D 20°C	1.4144	2
25	1.4120	2
30	1.4096	4
"C"	0.7441	4
MR (Obs.)	43.39	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0448	2
Dielectric		
A 45 to	6.867	2
B 165 °C	1395.	2
C	211.0	2
A* 45 to	1.3076	5
B* 165 °C	1300.	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.6857	5
B' 50 °C	1302.	5
C'	202.3	5
A'* 25 to	1.1738	5
B'* 50 °C	1223.	5
Ac 165 to	7.2717	5
Bc t_c °C	1715.5	5
Cc	251.9	5
Cryos. A°		
consts. B°		
t_e °C	155.27	5

		Ref.
dt/dP		
°C/mm		
25°C	1.914	5
BP	0.050	2
t_e	0.0365	5
30 mm	0.6952	4
ΔHm cal/g		
ΔHv cal/g		
25°C	80.0	2
30 mm	76.57	5
BP	66.5	2
t_e	64.75	5
t_e (d, e)	64.70	5
ΔHv/T_e	19.38	5
d 50 to	81.85	4
e 155 °C	0.1104	4
d' 10 to	83.76	5
e' 50 °C	0.1505	5
d_c g/ml		
v_c ml/g		
t_c °C	310.8	5
P_c mm	16713.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9689	4
t_e	0.9594	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300 °K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	22.80	2
γ 30	21.87	2
40	20.94	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.4	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.76\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

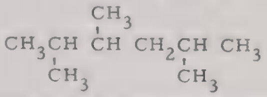
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 65

NAME	2, 3, 5-Trimethylhexane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250



$CH_3\underset{CH_3}{CH}\;\overset{CH_3}{CH}\;CH_2\underset{CH_3}{CH}\;CH_3$

		Ref.
F.P. °C	-127.8	2
F.P. 100%		
B.P. °C		
760 mm	131.34	2
100	69.	2
30	42.	2
10	21.	2
1	-12.9	5
Pressure		
mm 25°C	12.376	5
t_e	1104.	5
Density		
g/ml 20°C	0.7219	2
d_4^t 25	0.7179	2
30	0.7139	4
a	0.73788	4
b	-0.0_3796	4
Ref. Index		
n_D 20°C	1.4061	2
25	1.4037	2
30	1.4013	4
"C"	0.7494	4
MR (Obs.)	43.64	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0450	2
Dielectric		
A 40 to	6.8505	2
B 155 °C	1359.	2
C	211.0	2
A* 40 to	1.32039	5
B* 155 °C	1271.80	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.96029	5
B' 45 °C	1415.10	5
C'	216.2	5
A'* 25 to	1.43569	5
B'* 45 °C	1327.54	5
Ac 155 to	7.2523	5
Bc t_c °C	1667.6	5
Cc	250.3	5
Cryos. A°		
consts. B°		
t_e °C	145.96	5

		Ref.
dt/dP		
°C/mm		
25°C	1.442	5
BP	0.049	2
t_e	0.0369	5
30 mm	0.6814	4
ΔHm cal/g		
ΔHv cal/g		
25°C	77.19	2
30 mm	75.27	5
BP	64.9	2
t_e	63.35	5
t_e (d, e)	63.21	5
$\Delta Hv/T_e$	19.38	5
d 40 to	80.13	4
e 145 °C	0.1159	4
d' 10 to	80.03	5
e' 40 °C	0.1137	5
d_c g/ml		
v_c ml/g		
t_c °C	295.6	5
P_c mm	15745.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9586	5
t_e	0.9475	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B_v^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	21.27	2
γ 30	20.37	2
40	19.49	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	97.8	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

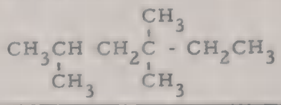
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 66

NAME	2, 4, 4-Trimethylhexane				STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	



$$CH_3CH(CH_3)\ CH_2C(CH_3)(CH_3) - CH_2CH_3$$

		Ref.
F.P. °C	-113.380	2
F.P. 100%		
B.P. °C		
760 mm	130.648	2
100	68.069	2
30	40.62	2
10	19.86	2
1	-14.2	5
Pressure		
mm 25°C	13.4	5
t_e	1096.	5
Density		
g/ml 20°C	0.72381	2
d_4^t 25	0.72007	2
30	0.71632	4
a	0.73875	5
b	-0.0_3744	5
Ref. Index		
n_D 20°C	1.40745	2
25	1.40515	2
30	1.40300	4
"C"	0.7499	4
MR (Obs.)	43.660	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04554	2
Dielectric		
A 40 to	6.85163	2
B 155 °C	1368.723	2
C	214.047	2
A* 40 to	1.32827	5
B* 155 °C	1282.18	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.79316	5
B' 40 °C	1339.10	5
C'	211.3	5
A'* 25 to	1.27805	5
B'* 40 °C	1255.58	5
Ac 155 to	7.2588	5
Bc t_c °C	1684.3	5
Cc	254.2	5
Cryos. A°	0.0535	2
consts. B°		
t_e °C	145.03	5

		Ref.
dt/dP		
°C/mm		
25°C	1.356	5
BP	0.0496	2
t_e	0.0373	5
30 mm	0.6860	4
ΔHm cal/g		
ΔHv cal/g		
25°C	76.1	2
30 mm	74.15	5
BP	63.9	2
t_e	62.41	5
t_e (d, e)	62.26	5
ΔHv/T_e	19.14	5
d 40 to	78.78	4
e 145 °C	0.1139	4
d' 10 to	79.22	5
e' 40 °C	0.1247	5
d_c g/ml		
v_c ml/g		
t_c °C	295.6	5
P_c mm	15689.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9533	4
t_e	0.9421	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300 °K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	21.17	2
γ 30	20.33	2
40	19.49	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.2	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

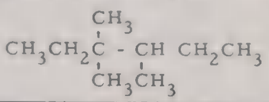
PURIFICATION: API

LITERATURE REFERENCES:

No. 67

NAME	3, 3, 4-Trimethylhexane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$$\mathrm{CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}} - \underset{CH_3}{CH}\ CH_2CH_3}$$

		Ref.
F.P. °C	-101.20	2
F.P. 100%		
B.P. °C		
760 mm	140.46	2
100	77.	2
30	48.	2
10	27.	2
1	-7.90	5
Pressure		
mm 25°C	8.8191	5
t_e	1121.	5
Density		
g/ml 20°C	0.7454	2
d_4^t 25	0.7414	2
30	0.7374	4
a	0.7614	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.4178	2
25	1.4154	2
30	1.4130	4
"C"	0.7458	4
MR (Obs.)	43.34	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0451	2
Dielectric		
A 45 to	6.8557	2
B 165 °C	1401.0	2
C	212.0	2
A* 45 to	1.32602	5
B* 165 °C	1313.63	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.97246	5
B' 50 °C	1462.49	5
C'	217.7	5
A'* 25 to	1.43846	5
B'* 50 °C	1372.08	5
Ac 165 to	7.2624	5
Bc t_c °C	1725.1	5
Cc	253.4	5
Cryos. A°	0.033	2
consts. B°		
t_e °C	156.12	5

		Ref.
dt/dP		
°C/mm		
25°C	1.983	5
BP	0.049	2
t_e	0.0375	5
30 mm	0.7011	4
ΔHm cal/g		
ΔHv cal/g		
25°C	78.8	2
30 mm	76.23	5
BP	65.5	2
t_e	63.85	5
t_e (d, e)	63.67	5
$\Delta Hv/T_e$	19.07	5
d 50 to	81.89	4
e 155 °C	0.1167	4
d' 10 to	81.54	5
e' 50 °C	0.1094	5
d_c g/ml		
v_c ml/g		
t_c °C	312.0	5
P_c mm	16275.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9514	4
t_e	0.9391	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	23.27	2
γ 30	22.31	2
40	21.35	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	95.3	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

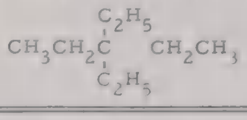
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 68

NAME	3, 3-Diethylpentane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	



$$CH_3CH_2\overset{C_2H_5}{\underset{C_2H_5}{C}}\ CH_2CH_3$$

		Ref.
F.P. °C	-33.110	2
F.P. 100%		
B.P. °C		
760 mm	146.168	2
100	81.044	2
30	52.40	2
10	30.71	2
1	-4.20	5
Pressure mm 25°C	7.168	5
t_e	1157.	5
Density g/ml 20°C	0.75359	2
d_4^t 25	0.75000	2
30	0.74641	4
a	0.76794	4
b	-0.0_3716	4
Ref. Index n_D 20°C	1.42051	2
25	1.41837	2
30	1.41623	4
"C"	0.7419	4
MR (Obs.)	43.113	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04372	2
Dielectric		
A 50 to	6.89262	2
B 175 °C	1451.245	2
C	215.575	2
A* 50 to	1.33005	5
B* 175 °C	1353.96	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.54752	5
B' 55 °C	1272.18	5
C'	198.5	5
A'* 25 to	1.03683	5
B'* 55 °C	1194.11	5
Ac 175 to	7.3074	5
Bc t_c °C	1793.2	5
Cc	259.2	5
Cryos. A°	0.0223	2
consts. B°		
t_e °C	163.42	5

		Ref.
dt/dP °C/mm		
25°C	2.379	5
BP	0.05153	2
t_e	0.0371	5
30 mm	0.7164	4
ΔHm cal/g		
ΔHv cal/g		
25°C	80.8	2
30 mm	76.44	5
BP	67.1	2
t_e	65.46	5
t_e (d, e)	65.38	5
$\Delta Hv/T_e$	19.23	5
d 50 to	81.66	4
e 165 °C	0.0996	4
d' 10 to	84.78	5
e' 50 °C	0.1591	5
d_c g/ml		
v_c ml/g		
t_c °C	324.3	5
P_c mm	17130.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9643	5
t_e	0.9526	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. γ 20°C	23.75	2
30	22.83	2
40	21.92	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	94.3	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

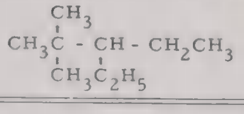
PURIFICATION: API

LITERATURE REFERENCES:

No. 69

NAME	3-Ethyl-2, 2-dimethylpentane			
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	

STRUCTURAL FORMULA



$$CH_3\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}} - \underset{\displaystyle C_2H_5}{CH} - CH_2CH_3$$

		Ref.
F.P. °C	-99.2	2
F.P. 100%		
B.P. °C		
760 mm	133.83	2
100	71.	2
30	43.	2
10	22.	2
1	-10.86	5
Pressure mm 25°C	11.572	5
t_e	1114.	5
Density g/ml 20°C	0.7348	2
d_4^t 25	0.7310	2
30	0.7272	4
a	0.74998	4
b	-0.0_3756	4
Ref. Index		
n_D 20°C	1.4123	2
25	1.4102	2
30	1.4077	4
"C"	0.7469	4
MR (Obs.)	43.46	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0449	2
Dielectric		
A 40 to	6.8482	2
B 160 °C	1376.0	2
C	213.0	2
A* 40 to	1.31046	5
B* 160 °C	1286.16	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.34515	5
B' 45 °C	1130.32	5
C'	189.0	5
A'* 25 to	0.85689	5
B'* 45 °C	1060.39	5
Ac 160 to	7.2549	5
Bc t_c °C	1694.6	5
Cc	253.8	5
Cryos. A°		
consts. B°		
t_e °C	149.00	5

		Ref.
dt/dP °C/mm		
25°C	1.521	5
BP	0.050	2
t_e	0.0371	5
30 mm	0.6905	4
ΔHm cal/g		
ΔHv cal/g		
25°C	78.3	2
30 mm	74.88	5
BP	64.9	2
t_e	63.36	5
t_e (d, e)	63.23	5
ΔHv/T_e	19.25	5
d 45 to	79.63	4
e 150 °C	0.1101	4
d' 10 to	83.01	5
e' 45 °C	0.1883	5
d_c g/ml		
v_c ml/g		
t_c °C	302.2	5
P_c mm	16099.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9599	5
t_e	0.9489	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	22.38	2
γ 30	21.45	2
40	20.52	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.3	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

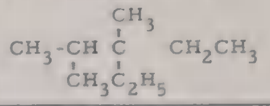
PURIFICATION: API

LITERATURE REFERENCES:

No. 70

NAME	3-Ethyl-2, 3-dimethylpentane				
Mole % Pur.		Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	

STRUCTURAL FORMULA



$$CH_3\text{-}\underset{CH_3}{CH}\;\overset{CH_3}{\underset{C_2H_5}{C}}\;CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	142.	2
100	77.	2
30	49.	2
10	28.	2
1	-7.09	5
Pressure		
mm 25°C	8.591	5
t_e	1138.	5
Density		
g/ml 20°C	0.754	2
d_4^t 25	0.750	2
30	0.746	4
a	0.76999	4
b	-0.0_3797	4
Ref. Index		
n_D 20°C	1.419	2
25	1.417	2
30	1.415	4
"C"	0.7390	4
MR (Obs.)	43.0	2
MR (Calc.)	43.762	5
(nD-d/2)	1.042	2
Dielectric		
A 45 to	6.853	2
B 170 °C	1414.	2
C	214.	2
A* 45 to	1.30518	5
B* 170 °C	1321.20	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.60638	5
B' 50 °C	1287.24	5
C'	201.9	5
A'* 25 to	1.09388	5
B'* 50 °C	1207.57	5
Ac 170 to	7.2640	5
Bc t_c °C	1746.3	5
Cc	256.6	5
Cryos. A° consts. B°		
t_e °C	158.42	5

		Ref.
dt/dP °C/mm		
25°C	2.0224	5
BP	0.050	2
t_e	0.0374	5
30 mm	0.7083	4
ΔHm cal/g		
ΔHv cal/g		
25°C	79.3	2
30 mm	75.71	5
BP	65.8	2
t_e	64.22	5
t_e (d, e)	64.05	5
$\Delta Hv/T_e$	19.08	5
d 50 to	80.94	4
e 160 °C	0.1066	4
d' 10 to	83.03	5
e' 50 °C	0.1493	5
d_c g/ml		
v_c ml/g		
t_c °C	316.4	5
P_c mm	16454.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9589	5
t_e	0.9477	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300 °K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	23.87	2
γ 30	22.94	2
40	22.00	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt. u.		
Dispersion	94.6	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

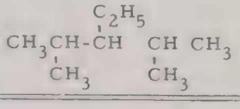
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 71

NAME	3-Ethyl-2, 4-dimethylpentane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250



$$\begin{array}{l} \qquad\qquad\quad C_2H_5 \\ CH_3CH\text{-}CH \quad CH\ CH_3 \\ \qquad CH_3 \qquad\quad CH_3 \end{array}$$

		Ref.
F.P. °C	-122.2	2
F.P. 100%		
B.P. °C		
760 mm	136.73	2
100	73.	2
30	45.	2
10	24.	2
1	-8.42	5
Pressure mm 25°C	10.228	5
t_e	1145.	5
Density g/ml 20°C	0.7379	2
d^t_4 25	0.7341	2
30	0.73031	4
a	0.75308	4
b	-0.0_3757	4
Ref. Index n_D 20°C	1.4137	2
25	1.4115	2
30	1.4091	4
"C"	0.7461	4
MR (Obs.)	43.40	2
MR (Calc.)	43.762	5
(nD-d/2)	1.0488	2
Dielectric		
A 45 to 165 °C	6.8524	2
B	1389.0	2
C	213.0	2
A* 45 to 165 °C	1.2849	5
B*	1291.5	5
K		
c		
t_k to °C		
t_x		
A' 25 to 45 °C	6.10396	5
B'	1029.13	5
C'	177.0	5
A'* 25 to	0.62992	5
B'* 45 °C	965.97	5
Ac 165 to t_c °C	7.2601	5
Bc	1711.9	5
Cc	254.4	5
Cryos. consts. A°		
B°		
t_e °C	153.13	5

		Ref.
dt/dP °C/mm		
25°C	1.684	5
BP	0.0503	4
t_e	0.0366	5
30 mm	0.6959	4
ΔHm cal/g		
ΔHv cal/g		
25°C	80.0	2
30 mm	75.34	5
BP	66.0	2
t_e	64.43	5
t_e (d, e)	64.32	5
ΔHv/T_e	19.40	5
d 50 to 150 °C	79.98	4
e	0.1022	4
d' 10 to 50 °C	85.71	5
e'	0.2286	5
d_c g/ml		
v_c ml/g		
t_c °C	307.6	5
P_c mm	16350.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9753	5
t_e	0.9650	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0294	4
n	0.0015	4
o	-0.0_652	4
m' 700 to 1000 °K	0.1222	4
n'	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. γ 20°C	22.80	2
30	21.87	2
40	20.94	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.4	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

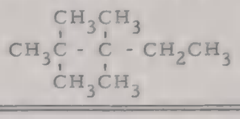
PURIFICATION: API

LITERATURE REFERENCES:

No. 72

NAME	2, 2, 3, 3-Tetramethylpentane		
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250

STRUCTURAL FORMULA



$$\begin{array}{c} CH_3\,CH_3 \\ CH_3C - C - CH_2CH_3 \\ CH_3\,CH_3 \end{array}$$

		Ref.
F. P. °C	-9.90	2
F. P. 100%		
B. P. °C		
760 mm	140.274	2
100	75.705	2
30	47.43	2
10	26.05	2
1	-10.3	5
Pressure		
mm 25°C	9.525	5
t_e	1150.3	5
Density		
g/ml 20°C	0.75666	2
d_4^t 25	0.75299	2
30	0.74932	4
a	0.77133	4
b	-0.0_3731	4
Ref. Index		
n_D 20°C	1.42360	2
25	1.42140	2
30	1.41921	4
"C"	0.7440	4
MR (Obs.)	43.215	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04527	2
Dielectric		
A 45 to	6.82876	2
B 180 °C	1397.483	2
C	213.703	2
A* 45 to	1.26281	5
B* 170 °C	1300.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.40914	5
B' 50 °C	1717.03	5
C'	242.0	5
A'* 25 to	1.84194	5
B'* 50 °C	1608.68	5
Ac 180 to	7.29516	5
Bc t_c °C	1788.9	5
Cc	265.7	5
Cryos. A°	0.00403	2
consts. B°		
t_e °C	157.18	5

		Ref.
dt/dP		
°C/mm		
25°C	1.893	5
BP	0.05124	2
t_e	0.0372	5
30 mm	0.7064	4
ΔHm cal/g		
ΔHv cal/g		
25°C	76.4	2
30 mm	75.17	5
BP	65.7	2
t_e	63.93	5
t_e (d, e)	63.98	5
$\Delta Hv/T_e$	19.05	5
d 50 to	80.00	4
e 160 °C	0.1020	4
d' 10 to	77.77	5
e' 50 °C	0.0550	5
d_c g/ml		
v_c ml/g		
t_c °C	316.6	5
P_c mm	16709.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9714	4
t_e	0.9606	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	23.38	2
γ 30	22.48	2
40	21.60	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	95.9	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.77\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

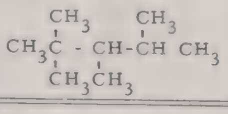
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 73

NAME	2, 2, 3, 4-Tetramethylpentane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	



$CH_3\overset{CH_3}{\underset{CH_3}{C}} - \underset{CH_3}{CH} - \overset{CH_3}{CH}\ CH_3$

		Ref.
F. P. °C	-121.09	2
F. P. 100%		
B. P. °C		
760 mm	133.016	2
100	69.617	2
30	41.85	2
10	20.85	2
1	-13.0	5
Pressure		
mm 25°C	12.574	4
t_e	1114.4	5
Density		
g/ml 20°C	0.73895	2
d_4^t 25	0.73524	2
30	0.73153	4
a	0.75378	4
b	-0.0_3738	4
Ref. Index		
n_D 20°C	1.41472	2
25	1.41246	2
30	1.41026	4
"C"	0.7467	4
MR (Obs.)	43.436	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04524	2
Dielectric		
A 40 to	6.83173	2
B 160 °C	1374.042	2
C	214.762	2
A* 40 to	1.29082	5
B* 160 °C	1282.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	6.56205	5
B' 45 °C	1239.12	5
C'	201.8	5
A'* 25 to	1.05786	5
B'* 45 °C	1161.40	5
Ac 160 to	7.28064	5
Bc t_c °C	1735.3	5
Cc	261.7	5
Cryos. A°	0.0027	2
consts. B°		
t_e °C	148.29	5

		Ref.
dt/dP		
°C/mm		
25°C	1.434	4
BP	0.05030	2
t_e	0.0374	5
30 mm	0.6938	4
ΔHm cal/g		
ΔHv cal/g		
25°C	76.4	2
30 mm	73.89	5
BP	63.9	2
t_e	62.23	5
t_e (d, e)	62.23	5
ΔHv/T_e	18.93	5
d 45 to	78.48	4
e 150 °C	0.1096	4
d' 10 to	80.12	5
e' 45 °C	0.1488	5
d_c g/ml		
v_c ml/g		
t_c °C	302.3	5
P_c mm	15991.	5
PV/RT		
25°C	1.0000	4
30 mm	1.0000	5
BP	0.9613	4
t_e	0.9503	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	21.98	2
γ 30	21.11	2
40	20.25	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.8	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.76\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

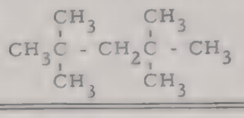
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 74

NAME	2, 2, 4, 4-Tetramethylpentane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250



$$CH_3\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}} - CH_2\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}} - CH_3$$

		Ref.
F.P. °C	-66.54	2
F.P. 100%		
B.P. °C		
760 mm	122.284	2
100	60.154	2
30	33.00	2
10	12.50	2
1	-24.7	5
Pressure mm 25°C	20.0524	5
t_e	1073.	5
Density g/ml 20°C	0.71947	2
d_4^t 25	0.71563	2
30	0.71178	4
a	0.73482	4
b	-0.0_3762	4
Ref. Index n_D 20°C	1.40694	2
25	1.40459	2
30		
"C"	0.7535	4
MR (Obs.)	43.875	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04720	2
Dielectric		
A 30 to	6.79710	2
B 155 °C	1325.183	2
C	216.093	2
A* 30 to	1.28102	5
B* 145 °C	1239.69	5
K		
c		
t_k to		
t_x °C		
A' 25 to	8.87467	5
B' 35 °C	2562.31	5
C'	313.4	5
A'* 25 to	3.21915	5
B'* 35 °C	2395.13	5
Ac 155 to	7.2058	5
Bc t_c °C	1635.6	5
Cc	256.0	5
Cryos. consts. A°	0.0273	2
B°		
t_e °C	135.74	5

		Ref.
dt/dP °C/mm		
25°C	0.968	4
BP	0.04932	2
t_e	0.0378	5
30 mm	0.6778	4
ΔHm cal/g		
ΔHv cal/g		
25°C	71.0	2
30 mm	71.44	5
BP	61.2	2
t_e	59.69	5
t_e (d, e)	59.66	5
ΔHv/T_e	18.72	5
d 35 to	75.23	4
e 135 °C	0.1147	4
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	283.0	5
P_c mm	14836.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9538	4
t_e	0.9431	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension dynes/cm. γ 20°C	20.37	2
30	19.46	2
40	18.55	2
Parachor [P] 20°C		
30		
40		
Sugd.	385.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	101.0	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

TR = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

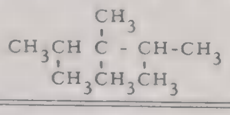
PURIFICATION: API

LITERATURE REFERENCES:

No. 75

NAME	2, 3, 3, 4-Tetramethylpentane				
Mole % Pur.		Ref.	Molecular Formula C_9H_{20}	Molecular Weight 128.250	

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\ \overset{CH_3}{\underset{CH_3}{C}} - \underset{CH_3}{CH}-CH_3$$

		Ref.
F.P. °C	-102.123	2
F.P. 100%		
B.P. °C		
760 mm	141.551	2
100	76.980	2
30	48.64	2
10	27.20	2
1	-8.44	5
Pressure mm 25°C	8.867	5
t_e	1131.	5
Density g/ml 20°C	0.75473	2
d_4^t 25	0.75113	2
30	0.74753	4
a	0.76912	4
b	-0.0_3717	4
Ref. Index n_D 20°C	1.42222	2
25	1.42003	2
30	1.41798	4
"C"	0.7437	4
MR (Obs.)	43.201	2
MR (Calc.)	43.762	5
(nD-d/2)	1.04486	2
Dielectric		
A 45 to	6.85961	2
B 175 °C	1417.473	2
C	214.705	2
A* 45 to	1.31873	5
B* 170 °C	1326.25	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.02779	5
B' 50 °C	1507.44	5
C'	222.9	5
A'* 25 to	1.48626	5
B'* 50 °C	1413.19	5
Ac 175 to	7.2719	5
Bc t_c °C	1751.7	5
Cc	257.6	5
Cryos. A°	0.0369	2
consts. B°		
t_e °C	157.71	5

		Ref.
dt/dP °C/mm		
25°C	1.997	5
BP	0.04223	2
t_e	0.0376	5
30 mm	0.7083	4
ΔHm cal/g		
ΔHv cal/g		
25°C	77.8	2
30 mm	75.53	5
BP	65.1	2
t_e	63.31	5
t_e (d, e)	63.29	5
ΔHv/T_e	18.84	5
d 50 to	81.00	4
e 160 °C	0.1123	4
d' 10 to	80.20	5
e' 50 °C	0.0959	5
d_c g/ml		
v_c ml/g		
t_c °C	317.1	5
P_c mm	16742.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9554	4
t_e	0.9434	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.39649	2
400	0.50136	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0294	4
n 600 °K	0.0015	4
o	-0.0_652	4
m' 700 to	0.1222	4
n' 1000 °K	0.0013	4
o'	-0.0_645	4
Surface tension		
dynes/cm. 20°C	23.31	2
γ 30	22.44	2
40	21.58	2
Parachor [P]		
20°C		
30		
40		
Sugd.	385.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	95.5	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.76 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 76

NAME	n-Decane			STRUCTURAL FORMULA $CH_3(CH_2)_8CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	

		Ref.
F.P. °C	-29.661	2
F.P. 100%		
B.P. °C		
760 mm	174.123	2
100	108.582	2
30	79.65	4
10	57.56	5
1	20.59	5
Pressure		
mm 25°C	1.366	5
t_e	1190.8	5
Density		
g/ml 20°C	0.73005	2
d_4^t 25	0.72625	2
30	0.72245	2
a	0.74525	4
b	$-0.0_{3}759$	4
Ref. Index		
n_D 20°C	1.41189	2
25	1.40967	2
30	1.40734	4
"C"	0.7510	4
MR (Obs.)	48.481	2
MR (Calc.)	48.38	5
(nD-d/2)	1.04686	2
Dielectric		
A 75 to	6.95367	2
B 210 °C	1501.268	2
C	194.480	2
A* 75 to	1.47706	4
B* 200 °C	1422.53	4
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33883	5
B' 80 °C	1719.86	5
C'	213.8	5
A'* 25 to	1.83020	4
B'* 80 °C	1626.19	4
Ac 210 to	7.3363	5
Bc t_c °C	1809.1	5
Cc	232.0	5
Cryos. A°	0.05824	3
consts. B°		
t_e °C	192.66	5

		Ref.
dt/dP		
°C/mm		
25°C	10.537	5
BP	0.05172	2
t_e	0.0364	5
30 mm	0.7246	4
ΔHm cal/g	48.24	3
ΔHv cal/g		
25°C	86.28	2
30 mm	79.99	5
BP	66.0	2
t_e	63.55	5
t_e (d, e)	64.74	5
$\Delta Hv/T_e$	19.41	5
d 80 to	91.79	4
e 190 °C	0.1481	4
d' 10 to	89.16	5
e' 80 °C	0.1151	5
d_c g/ml	0.236	2
v_c ml/g	4.231	2
t_c °C	346.	2
P_c mm	15808.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9345	5
t_e	0.9187	5
t_c	0.246	2
ΔHc kcal/m	1516.63	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 110 °C	0.5164	2
130	0.4502	2
150	0.3976	2
170	0.3543	2
B^v 70 to	462.90	4
A^v 125 °C	$\bar{2}.50523$	4
(B^v) 125 to	464.77	4
(A^v) 180 °C	$\bar{2}.50071$	4
c_p liq. °K		
c_p vap. 300°K	0.39599	2
400	0.50072	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0256	4
n	600 °K	0.0014	4
o		$-0.0_{6}47$	4
m'	700 to	0.1099	4
n'	1000 °K	0.0012	4
o'		$-0.0_{6}40$	4
Surface tension dynes/cm. γ	20°C	23.92	2
	30	22.96	2
	40	22.02	2
Parachor [P]	20°C		
	30		
	40		
	Sugd.	424.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		98.0	2
Flash Point °C			
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			
Viscosity centistokes			
η	80°C	0.6544	2
	120	0.4814	2

$T_R = 0.78\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

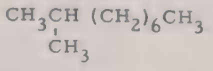
PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 76, 333 (1954) Finke et al

No. 77

NAME	2-Methylnonane				
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276		

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}(CH_2)_6CH_3$

		Ref.
F.P. °C	-74.50	2
F.P. 100%		
B.P. °C		
760 mm	166.8	2
100	101.27	4
30	72.38	4
10	50.35	5
1	13.55	5
Pressure mm 25°C	2.206	5
t_e	122.39	5
Density g/ml 20°C	0.7281	2
d_4^t 25	0.7242	2
30	0.7203	4
a	0.7437	4
b	$-0.0_{3}78$	4
Ref. Index		
n_D 20°C	1.4099	2
25	1.4076	2
30	1.4053	4
"C"	0.7496	4
MR (Obs.)	48.40	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0459	2
Dielectric	1.988	5
A 70 to	6.93010	5
B 225 °C	1485.28	5
C	200.	5
A* 70 to	1.3949	5
B* 190 °C	1388.6	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.2905	5
B' 70 °C	1688.1	5
C'	218.	5
A'* 10 to	1.7817	5
B'* 70 °C	1592.7	5
Ac 225 to	7.7412	5
Bc t_c °C	2254.1	5
Cc	298.5	5
Cryos. A°		
consts. B°		
t_e °C	186.55	5

		Ref.
dt/dP °C/mm		
25°C	6.8858	5
BP	0.05176	5
t_e	0.0357	5
30 mm	0.7231	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.75	5
30 mm	76.89	5
BP	66.18	5
t_e	63.96	5
t_e (d, e)	63.94	5
ΔHv/T_e	19.79	5
d 10 to	85.10	5
e 190 °C	0.1134	5
d' 20 to	84.32	5
e' 70 °C	0.1026	5
d_c g/ml	0.245	5
v_c ml/g	4.076	5
t_c °C	336.	5
P_c mm	15364.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9693	5
t_e	0.9568	5
t_c	0.242	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	22.21	5
γ 30	21.27	5
40	20.36	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	99.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

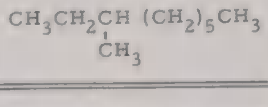
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 78

NAME	3-Methylnonane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$CH_3CH_2\underset{\displaystyle CH_3}{CH}(CH_2)_5CH_3$

		Ref.
F.P. °C	-84.80	2
F.P. 100%		
B.P. °C		
760 mm	167.8	2
100	103.08	4
30	74.40	4
10	52.48	5
1	15.75	5
Pressure		
mm 25°C	1.907	5
t_e	1200.1	5
Density		
g/ml 20°C	0.7334	2
d_4^t 25	0.7296	2
30	0.7258	4
a	0.7486	4
b	-0.0_376	4
Ref. Index		
n_D 20°C	1.4125	2
25	1.4103	2
30	1.4080	4
"C"	0.7486	4
MR (Obs.)	48.32	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0458	2
Dielectric	1.995	5
A 75 to	7.0020	5
B 226 °C	1516.	5
C	200.	5
A* 75 to	1.4957	5
B* 200 °C	1427.3	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.3644	5
B' 75 °C	1721.	5
C'	218.	5
A'* 15 to	1.8541	5
B'* 75 °C	1625.7	5
Ac 226 to	7.8175	5
Bc t_c °C	2291.	5
Cc	298.	5
Cryos. A° consts. B°		
t_e °C	186.5	5

		Ref.
dt/dP °C/mm		
25°C	7.8111	5
BP	0.05101	5
t_e	0.03565	5
30 mm	0.7190	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.37	5
30 mm	78.24	5
BP	66.38	5
t_e	64.04	5
t_e (d, e)	64.01	5
$\Delta Hv/T_e$	19.82	5
d 75 to	87.68	5
e 185 °C	0.1269	5
d' 15 to	85.96	5
e' 75 °C	0.1039	5
d_c g/ml	0.243	5
v_c ml/g	4.117	5
t_c °C	336.8	5
P_c mm	16121.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9536	5
t_e	0.9384	5
t_c	0.234	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.86	5
γ 30	21.93	5
40	21.02	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

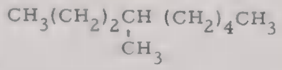
PURIFICATION: API

LITERATURE REFERENCES:

No. 79

NAME	4-Methylnonane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3(CH_2)_2\underset{CH_3}{CH}\ (CH_2)_4CH_3$$

		Ref.
F.P. °C	-98.7	2
F.P. 100%		
B.P. °C		
760 mm	165.7	2
100	101.18	4
30	72.61	4
10	50.79	5
1	14.25	5
Pressure		
mm 25°C	2.1059	5
t_e	1195.8	5
Density		
g/ml 20°C	0.7323	2
d_4^t 25	0.7284	2
30	0.7245	4
a	0.7479	4
b	-0.0_378	4
Ref. Index		
n_D 20°C	1.4123	2
25	1.4100	2
30	1.4076	4
"C"	0.7494	4
MR (Obs.)	48.38	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0461	2
Dielectric	1.994	5
A 70 to	6.9904	5
B 222 °C	1503.	5
C	200.	5
A* 70 to	1.4844	5
B* 190 °C	1414.3	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.3544	5
B' 70 °C	1708.0	5
C'	218.	5
A'* 15 to	1.8560	5
B'* 70 °C	1615.6	5
Ac 222 to	7.7856	5
Bc t_c °C	2249.3	5
Cc	294.3	5
Cryos. A°		
consts. B°		
t_e °C	184.13	5

		Ref.
dt/dP		
°C/mm		
25°C	7.1296	5
BP	0.05085	5
t_e	0.03566	5
30 mm	0.7158	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.72	5
30 mm	77.78	5
BP	65.98	5
t_e	63.70	5
t_e (d, e)	63.64	5
ΔHv/T_e	19.82	5
d 70 to	86.99	5
e 180 °C	0.1268	5
d' 15 to	85.31	5
e' 70 °C	0.1037	5
d_c g/ml	0.242	5
v_c ml/g	4.127	5
t_c °C	333.	5
P_c mm	15903.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9542	5
t_e	0.9399	5
t_c	0.247	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.72	5
γ 30	21.77	5
40	20.84	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

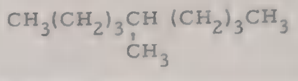
REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 80

NAME	5-Methylnonane			STRUCTURAL FORMULA  $CH_3(CH_2)_3\underset{CH_3}{\underset{\vert}{CH}}(CH_2)_3CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	

		Ref.
F.P. °C	-87.70	2
F.P. 100%		
B.P. °C		
760 mm	165.1	2
100	100.6	4
30	72.05	4
10	50.26	5
1	13.77	5
Pressure		
mm 25°C	2.1860	5
t_e	1197.0	5
Density		
g/ml 20°C	0.7326	2
d_4^t 25	0.7288	2
30	0.7250	4
a	0.7478	4
b	-0.0_376	4
Ref. Index		
n_D 20°C	1.4122	2
25	1.4100	2
30	1.4077	4
"C"	0.7489	4
MR (Obs.)	48.34	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0459	2
Dielectric	1.994	5
A 55 to	6.9871	5
B 222 °C	1499.	5
C	200.	5
A* 55 to	1.4783	5
B* 190 °C	1409.5	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.3517	5
B' 55 °C	1703.9	5
C'	218.	5
A'* 10 to	1.8431	5
B'* 55 °C	1608.6	5
Ac 222 to	7.7813	5
Bc t_c °C	2244.	5
Cc	294.	5
Cryos. A°		
consts. B°		
t_e °C	183.47	5

		Ref.
dt/dP		
°C/mm		
25°C	6.8851	5
BP	0.0508	5
t_e	0.03560	5
30 mm	0.7148	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.52	5
30 mm	77.64	5
BP	65.87	5
t_e	63.73	5
t_e (d, e)	63.55	5
ΔHv/T_e	19.61	5
d 70 to	86.76	5
e 180 °C	0.1265	5
d' 25 to	85.11	5
e' 70 °C	0.1037	5
d_c g/ml	0.244	5
v_c ml/g	4.098	5
t_c °C	333.	5
P_c mm	16015.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9542	5
t_e	0.9421	5
t_c	0.247	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	to		
n	°K		
o			
m'	to		
n'	°K		
o'			
Surface tension			
dynes/cm. 20°C		22.76	5
γ 30		21.83	5
40		20.93	5
Parachor [P]			
20°C			
30			
40			
Sugd.		424.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		98.	2
Flash Point °C			
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

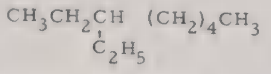
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 81

NAME	3-Ethyloctane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$CH_3CH_2\underset{C_2H_5}{CH}(CH_2)_4CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	168.	2
100	103.2	4
30	74.52	4
10	52.60	5
1	15.86	5
Pressure		
mm 25°C	1.8929	5
t_e	1202.5	5
Density		
g/ml 20°C	0.740	2
d_4^t 25	0.736	2
30	0.732	4
a	0.756	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.416	2
25	1.414	2
30	1.411	4
"C"	0.7479	4
MR (Obs.)	48.3	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.005	5
A 75 to	7.0031	5
B 227 °C	1517.	5
C	200.	5
A* 75 to	1.4945	5
B* 200 °C	1427.6	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.3654	5
B' 75 °C	1722.5	5
C'	218.	5
A'* 10 to	1.8550	5
B'* 75 °C	1626.7	5
Ac 227 to	7.8210	5
Bc t_c °C	2294.9	5
Cc	298.1	5
Cryos. A°		
consts. B°		
t_e °C	186.69	5

		Ref.
dt/dP		
°C/mm		
25°C	7.8654	5
BP	0.05101	5
t_e	0.0356	5
30 mm	0.7192	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.42	5
30 mm	78.27	5
BP	66.42	5
t_e	64.16	5
t_e (d, e)	64.05	5
ΔHv/T_e	19.85	5
d 75 to	87.72	5
e 185 °C	0.1268	5
d' 10 to	86.02	5
e' 75 °C	0.1039	5
d_c g/ml	0.245	5
v_c ml/g	4.085	5
t_c °C	337.	5
P_c mm	16170.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9535	5
t_e	0.9398	5
t_c	0.247	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.70	5
γ 30	22.69	5
40	21.71	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

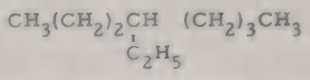
PURIFICATION: API

LITERATURE REFERENCES:

No. 82

NAME	4-Ethyloctane				
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$		Molecular Weight 142.276	

STRUCTURAL FORMULA



$CH_3(CH_2)_2\underset{C_2H_5}{CH}(CH_2)_3CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	168.	2
100	103.2	4
30	74.52	4
10	52.60	5
1	15.86	5
Pressure mm 25°C	1.8929	5
t_e	1202.5	5
Density g/ml 20°C	0.740	2
d_4^t 25	0.736	2
30	0.732	4
a	0.756	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.416	2
25	1.414	2
30	1.411	4
"C"	0.7479	4
MR (Obs.)	48.3	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.005	5
A 75 to	7.0031	5
B 227 °C	1517.	5
C	200.	5
A* 75 to	1.4945	5
B* 200 °C	1427.6	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.3654	5
B' 75 °C	1722.5	5
C'	218.	5
A'* 10 to	1.8550	5
B'* 75 °C	1626.7	5
Ac 227 to	7.8210	5
Bc t_c °C	2294.9	5
Cc	298.1	5
Cryos. A° consts. B°		
t_e °C	186.69	5

		Ref.
dt/dP °C/mm		
25°C	7.8654	5
BP	0.05101	5
t_e	0.03560	5
30 mm	0.7192	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.42	5
30 mm	78.27	5
BP	66.42	5
t_e	64.16	5
t_e (d, e)	64.05	5
$\Delta Hv/T_e$	19.85	5
d 75 to	87.72	5
e 185 °C	0.1268	5
d' 10 to	86.02	5
e' 75 °C	0.1039	5
d_c g/ml	0.245	5
v_c ml/g	4.085	5
t_c °C	337.	5
P_c mm	16170.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9535	5
t_e	0.9398	5
t_c	0.247	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.70	5
γ 30	22.69	5
40	21.71	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

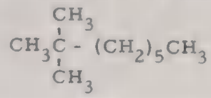
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 83

NAME	2, 2-Dimethyloctane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	



$$CH_3\overset{CH_3}{\underset{CH_3}{C}} - (CH_2)_5CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	155.	2
100	90.3	4
30	61.71	4
10	39.9	5
1	3.4	5
Pressure		
mm 25°C	4.237	5
t_e	1161.	5
Density		
g/ml 20°C	0.7245	2
d_4^t 25	0.7208	2
30	0.7171	4
a	0.7393	4
b	-0.0_374	4
Ref. Index		
n_D 20°C	1.4082	2
25	1.4060	2
30	1.4038	4
"C"	0.7504	4
MR (Obs.)	48.47	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0460	2
Dielectric	1.983	5
A 60 to	6.9621	5
B 205 °C	1488.	5
C	210.	5
A* 60 to	1.46537	5
B* 180 °C	1398.3	5
K		
c		
t_k to		
t_x °C		
A' 0 to	7.32603	5
B' 60 °C	1691.8	5
C'	228.	5
A'* 0 to	1.81246	5
B'* 60 °C	1591.5	5
Ac 205 to	7.7110	5
Bc t_c °C	2175.	5
Cc	296.	5
Cryos. A°		
consts. B°		
t_e °C	172.21	5

		Ref.
dt/dP		
°C/mm		
25°C	3.864	5
BP	0.05104	5
t_e	0.0366	5
30 mm	0.7159	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.85	5
30 mm	72.94	5
BP	62.29	4
t_e	60.38	5
t_e (d, e)	60.32	5
$\Delta Hv/T_e$	19.29	5
d 60 to	79.98	5
e 170 °C	0.1142	5
d' 10 to	77.84	5
e' 60 °C	0.0794	5
d_c g/ml	0.240	5
v_c ml/g	4.170	5
t_c °C	318.5	5
P_c mm	14927.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9369	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.77	5
γ 30	20.89	5
40	20.04	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	100.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

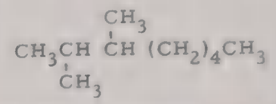
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 84

NAME	2, 3-Dimethyloctane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	



$CH_3\underset{CH_3}{CH}\,\overset{CH_3}{CH}\,(CH_2)_4CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	163.8	2
100	98.0	4
30	68.9	4
10	46.7	5
1	9.6	5
Pressure mm 25°C	2.828	5
t_e	1183.	5
Density g/ml 20°C	0.7376	2
d_4^t 25	0.7337	2
30	0.7298	4
a	0.7532	4
b	-0.0_378	4
Ref. Index n_D 20°C	1.4148	2
25	1.4125	2
30	1.4102	4
"C"	0.7483	4
MR (Obs.)	48.28	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0460	2
Dielectric	2.002	5
A 70 to 220°C	6.9766	5
B	1522.	5
C	208.	5
A* 70 to 190°C	1.47511	5
B*	1432.2	5
K		
c		
t_k to °C		
t_x		
A' 25 to 70°C	7.33426	5
B'	1726.8	5
C'	226.	5
A'* 25 to 70°C	1.81744	5
B'*	1626.3	5
Ac 220 to t_c °C	7.7920	5
Bc	2301.	5
Cc	306.	5
Cryos. A° consts. B°		
t_e °C	182.10	5

		Ref.
dt/dP °C/mm		
25°C	5.5982	5
BP	0.0519	5
t_e	0.0367	5
30 mm	0.7287	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.46	5
30 mm	74.79	5
BP	63.73	5
t_e	61.68	5
t_e (d, e)	61.60	5
ΔHv/T_e	19.27	5
d 70 to 180 °C	82.83	5
e	0.1166	5
d' 25 to 70 °C	80.54	5
e'	0.0834	5
d_c g/ml	0.241	5
v_c ml/g	4.154	5
t_c °C	331.8	5
P_c mm	15320.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9340	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	23.39	5
30	22.41	5
40	21.47	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

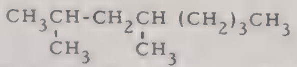
PURIFICATION: API

LITERATURE REFERENCES:

No. 85

NAME	2, 4-Dimethyloctane				
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276		

STRUCTURAL FORMULA



$\underset{CH_3}{CH_3CH}-CH_2\underset{CH_3}{CH}\ (CH_2)_3CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	153.	2
100	88.51	4
30	60.03	4
10	38.3	5
1	1.9	5
Pressure mm 25°C	4.6514	5
t_e	1155.	5
Density g/ml 20°C	0.7264	2
d_4^t 25	0.7224	2
30	0.7184	4
a	0.7424	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.4093	2
25	1.4069	2
30	1.4045	4
"C"	0.7503	4
MR (Obs.)	48.45	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0461	2
Dielectric	1.986	5
A 60 to 200 °C	6.9568	5
B	1479.	5
C	210.	5
A* 60 to 180 °C	1.46205	5
B*	1390.2	5
K		
c		
t_k to °C		
t_x		
A' 25 to 60 °C	7.32217	5
B'	1683.2	5
C'	228.	5
A'* 25 to 60 °C	1.80936	5
B'*	1582.9	5
Ac 200 to t_c °C	7.6878	5
Bc	2142.	5
Cc	294.	5
Cryos. consts. A° B°		
t_e °C	169.95	5

		Ref.
dt/dP °C/mm 25°C	3.5488	5
BP	0.05088	5
t_e	0.0367	5
30 mm	0.7132	5
ΔHm cal/g		
ΔHv cal/g 25°C	75.24	5
30 mm	72.49	5
BP	61.90	5
t_e	60.02	5
t_e (d, e)	59.97	5
ΔHv/T_e	19.27	5
d 60 to 170 °C	79.33	5
e	0.1139	5
d' 25 to 60 °C	77.20	5
e'	0.0785	5
d_c g/ml	0.237	5
v_c ml/g	4.214	5
t_c °C	314.7	5
P_c mm	14677.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9370	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v A^v to °C		
(B^v) (A^v) to °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	22.00	5
30	21.04	5
40	20.12	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

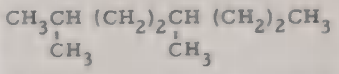
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 86

NAME	2,5-Dimethyloctane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276


$CH_3\underset{CH_3}{CH}(CH_2)_2\underset{CH_3}{CH}(CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	158.	2
100	92.9	4
30	64.15	4
10	42.2	5
1	5.5	5
Pressure		
mm 25°C	3.7001	5
t_e	1170.	5
Density		
g/ml 20°C	0.736	2
d_4^t 25	0.732	2
30	0.728	4
a	0.752	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.414	2
25	1.412	2
30	1.409	4
"C"	0.7486	4
MR (Obs.)	48.3	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.000	5
A 65 to	6.9658	5
B 210 °C	1499.	5
C	209.	5
A* 65 to	1.46620	5
B* 185 °C	1409.0	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.32751	5
B' 65 °C	1703.2	5
C'	227.	5
A'* 25 to	1.81284	5
B'* 65 °C	1602.8	5
Ac 210 to	7.7373	5
Bc t_c °C	2217.	5
Cc	299.7	5
Cryos. A°		
consts. B°		
t_e °C	175.63	5

		Ref.
dt/dP		
°C/mm		
25°C	4.3755	5
BP	0.05134	5
t_e	0.0365	5
30 mm	0.7204	5
ΔHm cal/g		
ΔHv cal/g		
25°C	76.71	5
30 mm	73.55	5
BP	62.81	5
t_e	60.85	5
t_e (d, e)	60.79	5
ΔHv/T_e	19.29	5
d 65 to	80.89	5
e 175 °C	0.1145	5
d' 25 to	78.73	5
e' 65 °C	0.0808	5
d_c g/ml	0.240	5
v_c ml/g	4.160	5
t_c °C	323.2	5
P_c mm	15080.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9366	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.19	5
γ 30	22.19	5
40	21.23	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	99.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in †		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

† grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

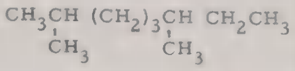
PURIFICATION: API

LITERATURE REFERENCES:

No. 87

NAME	2, 6-Dimethyloctane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}(CH_2)_3\underset{CH_3}{CH}CH_2CH_3$

			Ref.
F.P. °C			
F.P. 100%			
B.P. °C	760 mm	158.54	2
	100	93.4	4
	30	64.62	4
	10	42.6	5
	1	5.9	5
Pressure	mm 25°C	3.6029	5
	t_e	1171.	5
Density	g/ml 20°C	0.7285	2
d_4^t	25	0.7245	2
	30	0.7205	4
a		0.7449	4
b		-0.0_380	4
Ref. Index	n_D 20°C	1.4113	2
	25	1.4089	2
	30	1.4065	4
"C"		0.7516	4
MR (Obs.)		48.52	2
MR (Calc.)		48.38	5
(nD-d/2)		1.0471	2
Dielectric		1.992	5
A	70 to	6.9681	5
B	210 °C	1502.	5
C		209.	5
A*	70 to	1.46804	5
B*	185 °C	1411.6	5
K			
c			
t_k	to		
t_x	°C		
A'	25 to	7.32953	5
B'	70 °C	1705.9	5
C'		227.	5
A'*	25 to	1.81464	5
B'*	70 °C	1605.5	5
Ac	210 to	7.7359	5
Bc	t_c °C	2214.	5
Cc		299.	5
Cryos. consts.	A°		
	B°		
t_e °C		176.23	5

			Ref.
dt/dP °C/mm	25°C	4.4828	5
	BP	0.05137	5
	t_e	0.0366	5
	30 mm	0.7210	5
ΔHm cal/g			
ΔHv cal/g	25°C	76.90	5
	30 mm	73.69	5
	BP	62.92	5
	t_e	60.95	5
	t_e (d, e)	60.89	5
ΔHv/T_e		19.30	5
d	70 to	81.09	5
e	175 °C	0.1146	5
d'	25 to	78.92	5
e'	70 °C	0.0810	5
d_c g/ml		0.237	5
v_c ml/g		4.217	5
t_c °C		322.7	5
P_c mm		14866.	5
PV/RT	25°C	1.0000	5
	30 mm	1.0000	5
	BP	0.9500	5
	t_e	0.9366	5
	t_c	0.24	5
ΔHc kcal/m			
ΔHf			
ΔFf			
Viscosity centistokes	η °C		
B^v	to		
A^v	°C		
(B^v)	to		
(A^v)	°C		
c_p liq.	°K		
c_p vap.	°K		
c_v vap.			

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	to		
n	°K		
o			
m'	to		
n'	°K		
o'			
Surface tension dynes/cm. γ	20°C	22.26	5
	30	21.29	5
	40	20.36	5
Parachor [P]	20°C		
	30		
	40		
	Sugd.	424.2	5
Exp. L.1.%/wt.			
u.			
Dispersion		99.	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

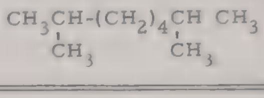
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 88

NAME	2,7-Dimethyloctane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$\underset{\displaystyle CH_3}{CH_3CH}\text{-}(CH_2)_4\underset{\displaystyle CH_3}{CH}\ CH_3$$

		Ref.
F.P. °C	-54.	2
F.P. 100%		
B.P. °C		
760 mm	159.87	2
100	94.6	4
30	65.7	4
10	43.7	5
1	6.8	5
Pressure mm 25°C	3.3920	5
t_e	1173.	5
Density g/ml 20°C	0.7242	2
d_4^t 25	0.7202	2
30	0.7162	4
a	0.7402	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.4086	2
25	1.4062	2
30	1.4038	4
"C"	0.7514	4
MR (Obs.)	48.53	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0465	2
Dielectric	1.984	5
A 70 to	6.9697	5
B 210 °C	1507.	5
C	209.	5
A* 70 to	1.47015	5
B* 185 °C	1416.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33015	5
B' 70 °C	1711.0	5
C'	227.	5
A'* 25 to	1.81478	5
B'* 70 °C	1610.6	5
Ac 210 to	7.7416	5
Bc t_c °C	2225.	5
Cc	299.	5
Cryos. A° consts. B°		
t_e °C	177.69	5

		Ref.
dt/dP °C/mm		
25°C	4.7380	5
BP	0.05150	5
t_e	0.0367	5
30 mm	0.7230	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.28	5
30 mm	73.96	5
BP	63.08	5
t_e	61.09	5
t_e (d, e)	61.02	5
ΔHv/T_e	19.27	5
d 70 to	81.55	5
e 175 °C	0.1155	5
d' 25 to	79.32	5
e' 70 °C	0.0816	5
d_c g/ml	0.235	5
v_c ml/g	4.261	5
t_c °C	323.6	5
P_c mm	14735.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9490	5
t_e	0.9354	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.73	5
γ 30	20.79	5
40	19.87	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.6	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

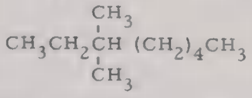
PURIFICATION: API

LITERATURE REFERENCES:

No. 89

NAME	3, 3-Dimethyloctane				
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276		

STRUCTURAL FORMULA



$$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}H\ (CH_2)_4CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	161.2	2
100	95.7	4
30	66.78	4
10	44.7	5
1	7.7	5
Pressure		
mm 25°C	3.1931	5
t_e	1176.	5
Density		
g/ml 20°C	0.7390	2
d_4^t 25	0.7351	2
30	0.7312	4
a	0.7546	4
b	-0.0_378	4
Ref. Index		
n_D 20°C	1.4165	2
25	1.4142	2
30	1.4114	4
"C"	0.7498	4
MR (Obs.)	48.36	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0470	2
Dielectric	2.007	5
A 70 to	6.9713	5
B 215 °C	1512.	5
C	208.	5
A* 70 to	1.4723	5
B* 190 °C	1422.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.3308	5
B' 70 °C	1716.0	5
C'	226.	5
A'* 25 to	1.81491	5
B'* 70 °C	1615.6	5
Ac 215 to	7.7697	5
Bc t_c °C	2267.	5
Cc	304.	5
Cryos. A°		
consts. B°		
t_e °C	179.15	5

		Ref.
dt/dP		
°C/mm		
25°C	5.0083	5
BP	0.05163	5
t_e	0.0367	5
30 mm	0.7250	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.66	5
30 mm	74.23	5
BP	63.25	5
t_e	61.24	5
t_e (d, e)	61.16	5
$\Delta Hv/T_e$	19.26	5
d 70 to	81.99	5
e 180 °C	0.1162	5
d' 25 to	79.72	5
e' 70 °C	0.0822	5
d_c g/ml	0.242	5
v_c ml/g	4.136	5
t_c °C	328.5	5
P_c mm	15304.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9342	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.57	5
γ 30	22.59	5
40	21.63	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

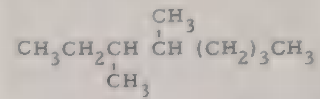
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 90

NAME	3, 4-Dimethyloctane				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$		Molecular Weight 142.276	



$$CH_3CH_2\underset{CH_3}{CH}\,\overset{CH_3}{CH}\,(CH_2)_3CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	166.	2
100	99.9	4
30	70.7	4
10	48.4	5
1	11.1	5
Pressure mm 25°C	2.5603	5
t_e	1190.	5
Density g/ml 20°C	0.746	2
d_4^t 25	0.742	2
30	0.738	4
a	0.762	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.4182	2
25	1.4159	2
30	1.4135	4
"C"	0.7456	4
MR (Obs.)	48.1	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.011	5
A 70 to	6.9782	5
B 225 °C	1530.	5
C	208.	5
A* 70 to	1.47457	5
B* 195 °C	1439.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33417	5
B' 70 °C	1734.7	5
C'	226.	5
A'* 25 to	1.81657	5
B'* 70 °C	1634.1	5
Ac 225 to	7.8161	5
Bc t_c °C	2341.	5
Cc	310.	5
Cryos. A° consts. B°		
t_e °C	184.62	5

		Ref
dt/dP °C/mm		
25°C	6.1341	5
BP	0.05208	5
t_e	0.0367	5
30 mm	0.7320	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.08	5
30 mm	75.22	5
BP	64.10	5
t_e	62.01	5
t_e (d, e)	61.92	5
$\Delta Hv/T_e$	19.27	5
d 70 to	83.48	5
e 185 °C	0.1167	5
d' 25 to	81.19	5
e' 70 °C	0.0844	5
d_c g/ml	0.242	5
v_c ml/g	4.128	5
t_c °C	335.8	5
P_c mm	15521.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9339	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	24.47	5
30	23.44	5
40	22.44	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

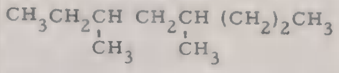
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 91

NAME	3, 5-Dimethyloctane	STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$
Molecular Weight 142.276		



$CH_3CH_2\underset{CH_3}{CH}\ CH_2\underset{CH_3}{CH}\ (CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	160.	2
100	94.7	4
30	65.82	4
10	43.8	5
1	6.9	5
Pressure		
mm 25°C	3.3674	5
t_e	1172.	5
Density		
g/ml 20°C	0.736	2
d_4^t 25	0.732	2
30	0.728	4
a	0.752	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.413	2
25	1.411	2
30	1.408	4
"C"	0.7468	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.039	5
A 70 to	6.9710	5
B 215 °C	1508.	5
C	209.	5
A* 70 to	1.47305	5
B* 185 °C	1418.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33132	5
B' 70 °C	1711.9	5
C'	227.	5
A'* 25 to	1.81589	5
B'* 70 °C	1611.5	5
Ac 215 to	7.7550	5
Bc t_c °C	2243.	5
Cc	301.	5
Cryos. A°		
consts. B°		
t_e °C	177.78	5

		Ref.
dt/dP		
°C/mm		
25°C	9.4812	5
BP	0.05150	5
t_e	0.0367	5
30 mm	0.7231	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.33	5
30 mm	74.00	5
BP	63.06	5
t_e	61.07	5
t_e (d, e)	60.99	5
$\Delta Hv/T_e$	19.27	5
d 70 to	81.65	5
e 175 °C	0.1162	5
d' 25 to	79.38	5
e' 70 °C	0.0817	5
d_c g/ml	0.240	5
v_c ml/g	4.170	5
t_c °C	325.8	5
P_c mm	15110.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9343	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.19	5
γ 30	22.19	5
40	21.23	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

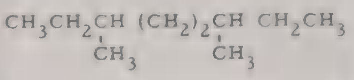
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 92

NAME	3, 6-Dimethyloctane				STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	



$CH_3CH_2\underset{CH_3}{CH}(CH_2)_2\underset{CH_3}{CH}CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	160.	2
100	94.7	4
30	65.8	4
10	43.8	5
1	6.9	5
Pressure mm 25°C	3.3674	5
t_e	1172.	5
Density g/ml 20°C	0.7363	2
d_4^t 25	0.7324	2
30	0.7285	4
a	0.7519	4
b	-0.0_378	4
Ref. Index		
n_D 20°C	1.4145	2
25	1.4122	2
30	1.4099	4
"C"	0.7491	4
MR (Obs.)	48.337	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0463	2
Dielectric	.2.001	5
A 70 to	6.9710	5
B 215 °C	1508.	5
C	209.	5
A* 70 to	1.47305	5
B* 185 °C	1418.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33132	5
B' 70 °C	1711.89	5
C'	227.	5
A'* 25 to	1.81589	5
B'* 70 °C	1611.5	5
Ac 215 to	7.7581	5
Bc t_c °C	2247.	5
Cc	302.	5
Cryos. A° consts. B°		
t_e °C	177.78	5

		Ref
dt/dP °C/mm		
25°C	4.7691	5
BP	0.05150	5
t_e	0.0367	5
30 mm	0.7231	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.33	5
30 mm	74.00	5
BP	63.06	5
t_e	61.07	5
t_e (d, e)	60.99	5
$\Delta Hv/T_e$	19.27	5
d 70 to	81.65	5
e 175 °C	0.1162	5
d' 25 to	79.38	5
e' 70 °C	0.0817	5
d_c g/ml	0.241	5
v_c ml/g	4.147	5
t_c °C	326.4	5
P_c mm	15209.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9343	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.22	5
γ 30	22.25	5
40	21.31	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

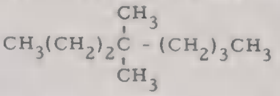
PURIFICATION: API

LITERATURE REFERENCES:

No. 93

NAME	4, 4-Dimethyloctane
Mole % Pur.	
Ref.	
Molecular Formula	$C_{10}H_{22}$
Molecular Weight	142.276

STRUCTURAL FORMULA



$$CH_3(CH_2)_2\overset{CH_3}{\underset{CH_3}{C}} - (CH_2)_3CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	161.	2
100	95.6	4
30	66.64	4
10	44.6	5
1	7.6	5
Pressure mm 25°C	3.2176	5
t_e	1175.	5
Density g/ml 20°C	0.737	2
d_4^t 25	0.733	2
30	0.729	4
a	0.753	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.414	2
25	1.412	2
30	1.409	4
"C"	0.7475	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.000	5
A 70 to	6.9720	5
B 215 °C	1511.	5
C	208.	5
A* 70 to	1.47331	5
B* 190 °C	1421.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33180	5
B' 70 °C	1715.69	5
C'	226.	5
A'* 25 to	1.81600	5
B'* 70 °C	1615.2	5
Ac 215 to	7.7641	5
Bc t_c °C	2257.	5
Cc	303.	5
Cryos. A°		
consts. B°		
t_e °C	178.92	5

		Ref.
dt/dP °C/mm		
25°C	4.9725	5
BP	0.05160	5
t_e	0.0367	5
30 mm	0.7246	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.62	5
30 mm	74.20	5
BP	63.23	5
t_e	61.22	5
t_e (d, e)	61.15	5
$\Delta Hv/T_e$	19.27	5
d 70 to	81.95	5
e 180 °C	0.1163	5
d' 25 to	79.68	5
e' 70 °C	0.0821	5
d_c g/ml	0.240	5
v_c ml/g	4.168	5
t_c °C	327.4	5
P_c mm	15157.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9342	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.31	5
γ 30	22.31	5
40	21.35	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

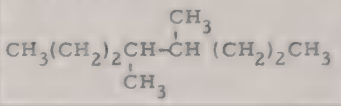
PURIFICATION: API

LITERATURE REFERENCES:

No. 94

NAME	4, 5-Dimethyloctane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3(CH_2)_2\underset{CH_3}{CH}-\overset{CH_3}{CH}(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	162.13	2
100	96.5	4
30	67.5	4
10	45.4	5
1	8.3	5
Pressure mm 25°C	3.0629	5
t_e	1178.	5
Density g/ml 20°C	0.7470	2
d_4^t 25	0.7432	2
30	0.7394	4
a	0.7622	4
b	-0.0$_3$76	4
Ref. Index n_D 20°C	1.4190	2
25	1.4167	2
30	1.4145	4
"C"	0.7459	4
MR (Obs.)	48.10	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0455	2
Dielectric	2.013	5
A 70 to 220 °C	6.9719	5
B	1515.	5
C	208.	5
A* 70 to 190 °C	1.47193	5
B*	1425.2	5
K		
c		
t_k to t_x °C		
A' 25 to 70 °C	7.33061	5
B'	1719.3	5
C'	226.	5
A'* 25 to 70 °C	1.81443	5
B'*	1618.8	5
Ac 220 to t_c °C	7.7883	5
Bc	2295.	5
Cc	307.	5
Cryos. consts. A° B°		
t_e °C	180.22	5

		Ref.
dt/dP °C/mm		
25°C	5.2038	5
BP	0.05173	5
t_e	0.0367	5
30 mm	0.7264	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.92	5
30 mm	74.41	5
BP	63.41	5
t_e	61.39	5
t_e (d, e)	61.31	5
ΔHv/T_e	19.26	5
d 70 to 180 °C	82.26	5
e	0.1162	5
d' 25 to 70 °C	79.99	5
e'	0.0826	5
d_c g/ml	0.246	5
v_c ml/g	4.062	5
t_c °C	331.6	5
P_c mm	15661.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9341	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v A^v to °C		
(B^v) (A^v) to °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	24.60	5
30	23.62	5
40	22.66	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt. u.		
Dispersion	95.8	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

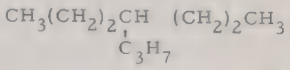
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 95

NAME	4-Propylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$CH_3(CH_2)_2\underset{C_3H_7}{CH}(CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	162.	2
100	96.4	4
30	67.5	4
10	45.3	5
1	8.3	5
Pressure		
mm 25°C	3.0744	5
t_e	1178.	5
Density		
g/ml 20°C	0.7364	2
d_4^t 25	0.7326	2
30	0.7288	4
a	0.7516	4
b	-0.0_376	4
Ref. Index		
n_D 20°C	1.4150	2
25	1.4127	2
30	1.4105	4
"C"	0.7498	4
MR (Obs.)	48.38	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0468	2
Dielectric	2.002	5
A 65 to	6.9734	5
B 220 °C	1515.	5
C	208.	5
A* 65 to	1.47356	5
B* 190 °C	1425.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33227	5
B' 65 °C	1719.5	5
C'	226.	5
A'* 25 to	1.81612	5
B'* 65 °C	1619.0	5
Ac 220 to	7.7776	5
Bc t_c °C	2278.	5
Cc	305.	5
Cryos. A°		
consts. B°		
t_e °C	180.06	5

		Ref.
dt/dP		
°C/mm		
25°C	5.1849	5
BP	0.05169	5
t_e	0.0367	5
30 mm	0.7261	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.91	5
30 mm	74.41	5
BP	63.41	5
t_e	61.38	5
t_e (d, e)	61.30	5
ΔHv/T_e	19.27	5
d 65 to	82.26	5
e 180 °C	0.1164	5
d' 25 to	79.98	5
e' 65 °C	0.0826	5
d_c g/ml	0.242	5
v_c ml/g	4.135	5
t_c °C	329.6	5
P_c mm	15334.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9342	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.24	5
γ 30	22.29	5
40	21.37	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

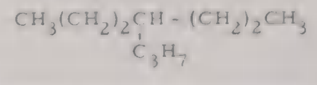
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 96

NAME	4-Isopropylheptane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	



$$\underset{C_3H_7}{CH_3(CH_2)_2CH} - (CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	160.	2
100	94.7	4
30	65.8	4
10	43.8	5
1	6.9	5
Pressure mm 25°C	3.3674	5
t_e	1172.	5
Density g/ml 20°C	0.741	2
d_4^t 25	0.737	2
30	0.733	4
a	0.757	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.417	2
25	1.415	2
30	1.412	4
"C"	0.7486	4
MR (Obs.)	48.3	2
MR (Calc.)	48.38	5
(nD-d/2)	1.047	2
Dielectric	2.008	5
A 70 to	6.9710	5
B 215 °C	1508.	5
C	209.	5
A* 70 to	1.47305	5
B* 187 °C	1418.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33132	5
B' 70 °C	1711.9	5
C'	227.	5
A'* 25 to	1.81589	5
B'* 70 °C	1611.5	5
Ac 215 to	7.7600	5
Bc t_c °C	2250.	5
Cc	302.	5
Cryos. A° consts. B°		
t_e °C	177.78	5

		Ref.
dt/dP °C/mm		
25°C	4.7691	5
BP	0.05150	5
t_e	0.0367	5
30 mm	0.7231	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.33	5
30 mm	74.00	5
BP	63.06	5
t_e	61.07	5
t_e (d, e)	61.00	5
ΔHv/T_e	19.27	5
d 70 to	81.65	5
e 175 °C	0.1161	5
d' 25 to	79.38	5
e' 70 °C	0.0817	5
d_c g/ml	0.242	5
v_c ml/g	4.133	5
t_c °C	326.7	5
P_c mm	15270.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9343	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.82	5
γ 30	22.81	5
40	21.82	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

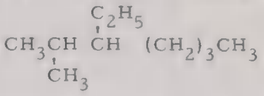
PURIFICATION: API

LITERATURE REFERENCES:

No. 97

NAME	3-Ethyl-2-methylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\overset{C_2H_5}{CH}(CH_2)_3CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	166.	2
100	99.9	4
30	70.7	4
10	48.4	5
1	11.1	5
Pressure mm 25°C	2.5603	5
t_e	1189.	5
Density g/ml 20°C	0.746	2
d_4^t 25	0.742	2
30	0.738	4
a	0.762	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.418	2
25	1.416	2
30	1.413	4
"C"	0.7452	4
MR (Obs.)	48.1	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.011	5
A 75 to	6.9782	5
B 225 °C	1530.	5
C	208.	5
A* 75 to	1.47547	5
B* 195 °C	1439.9	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33417	5
B' 75 °C	1734.7	5
C'	226.	5
A'* 25 to	1.81657	5
B'* 75 °C	1634.1	5
Ac 225 to	7.8159	5
Bc t_c °C	2340.	5
Cc	310.	5
Cryos. A°		
consts. B°		
t_e °C	184.59	5

		Ref.
dt/dP °C/mm		
25°C	6.1341	5
BP	0.05208	5
t_e	0.0367	5
30 mm	0.7320	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.08	5
30 mm	75.22	5
BP	64.06	5
t_e	61.97	5
t_e (d, e)	61.89	5
ΔHv/T_e	19.26	5
d 75 to	83.50	5
e 185 °C	0.1171	5
d' 25 to	81.19	5
e' 75 °C	0.0844	5
d_c g/ml	0.242	5
v_c ml/g	4.129	5
t_c °C	335.8	5
P_c mm	15514.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9475	5
t_e	0.9333	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	24.47	5
γ 30	23.44	5
40	22.43	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

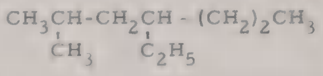
PURIFICATION: API

LITERATURE REFERENCES:

No. 98

NAME	4-Ethyl-2-methylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\text{-}CH_2\underset{C_2H_5}{CH}\text{-}(CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	160.	2
100	94.7	4
30	65.9	4
10	43.8	5
1	7.0	5
Pressure		
mm 25°C	3.3554	5
t_e	1172.	5
Density		
g/ml 20°C	0.736	2
d_4^t 25	0.732	2
30	0.728	4
a	0.752	4
b	-0.033	4
Ref. Index		
n_D 20°C	1.413	2
25	1.411	2
30	1.408	4
"C"	0.7468	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	1.996	5
A 70 to	6.9737	5
B 215 °C	1509.	5
C	209.	5
A* 70 to	1.47578	5
B* 185 °C	1419.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33416	5
B' 70 °C	1713.	5
C'	227.	5
A'* 25 to	1.81869	5
B'* 70 °C	1612.6	5
Ac 215 to	7.7575	5
Bc t_c °C	2243.	5
Cc	301.	5
Cryos. A°		
consts. B°		
t_e °C	177.77	5

		Ref.
dt/dP		
°C/mm		
25°C	5.4812	5
BP	0.05146	5
t_e	0.0367	5
30 mm	0.7229	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.38	5
30 mm	74.04	5
BP	63.10	5
t_e	61.11	5
t_e (d, e)	61.03	5
ΔHv/T_e	19.28	5
d 70 to	81.70	5
e 175 °C	0.1163	5
d' 25 to	79.43	5
e' 70 °C	0.0817	5
d_c g/ml	0.240	5
v_c ml/g	4.163	5
t_c °C	325.8	5
P_c mm	15136.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9343	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.19	5
γ 30	22.19	5
40	21.23	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

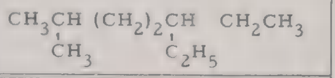
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 99

NAME	5-Ethyl-2-methylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$\underset{CH_3}{CH_3CH}\,(CH_2)_2\underset{C_2H_5}{CH}\;\;CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	159.7	2
100	94.4	4
30	65.5	4
10	43.5	5
1	6.6	5
Pressure		
mm 25°C	3.42450	5
t_e	1171.	5
Density		
g/ml 20°C	0.736	2
d_4^t 25	0.732	2
30	0.728	4
a	0.752	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.4134	2
25	1.4109	2
30	1.4086	4
"C"	0.7475	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	1.998	5
A 70 to	6.9681	5
B 215 °C	1506.	5
C	209.	5
A* 70 to	1.47051	5
B* 185 °C	1416.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.32861	5
B' 70 °C	1709.8	5
C'	227.	5
A'* 25 to	1.81332	5
B'* 70 °C	1609.4	5
Ac 215 to	7.7503	5
Bc t_c °C	2238.	5
Cc	301.	5
Cryos. A°		
consts. B°		
t_e °C	177.45	5

		Ref.
dt/dP		
°C/mm		
25°C	4.6975	5
BP	0.05150	5
t_e	0.0367	5
30 mm	0.7229	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.20	5
30 mm	73.90	5
BP	62.97	5
t_e	60.98	5
t_e (d, e)	60.91	5
ΔHv/T_e	19.25	5
d 70 to	81.51	5
e 175 °C	0.1161	5
d' 25 to	79.24	5
e' 70 °C	0.0815	5
d_c g/ml	0.240	5
v_c ml/g	4.175	5
t_c °C	325.4	5
P_c mm	15082.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9343	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.19	5
γ 30	22.19	5
40	21.23	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

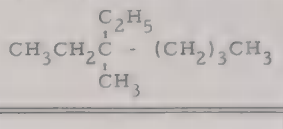
PURIFICATION: API

LITERATURE REFERENCES:

No. 100

NAME	3-Ethyl-3-methylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3CH_2\overset{C_2H_5}{\underset{CH_3}{C}} - (CH_2)_3CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	163.8	2
100	97.98	4
30	68.89	4
10	46.67	5
1	9.50	5
Pressure mm 25°C	2.838	5
t_e	1183.2	5
Density g/ml 20°C	0.7501	2
d_4^t 25	0.7463	2
30	0.7425	5
a	0.7653	5
b	$-0.0_{3}76$	5
Ref. Index n_D 20°C	1.4208	2
25	1.4190	2
30	1.4163	4
"C"	0.7459	4
MR (Obs.)	48.08	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0458	2
Dielectric	2.019	5
A 68 to	6.9739	5
B 223 °C	1521.3	5
C	208.	5
A* 68 to	1.4724	5
B* 200 °C	1431.2	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.3314	5
B' 68 °C	1725.6	5
C'	226.0	5
A'* 20 to	1.8147	5
B'* 68 °C	1625.2	5
Ac 223 to	7.8061	5
Bc t_c °C	2323.9	5
Cc	309.6	5
Cryos. A° consts. B°		
t_e °C	182.12	5

		Ref.
dt/dP °C/mm		
25°C	5.5814	5
BP	0.05189	5
t_e	0.03670	5
30 mm	0.7289	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.41	5
30 mm	74.75	5
BP	63.70	5
t_e	61.65	5
t_e (d, e)	61.57	5
ΔHv/T_e	19.26	5
d 68 to	82.77	5
e 182 °C	0.1164	5
d' 20 to	80.49	5
e' 68 °C	0.0834	5
d_c g/ml	0.247	5
v_c ml/g	4.045	5
t_c °C	334.	5
P_c mm	15790.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9340	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	25.01	5
γ 30	24.01	5
40	23.04	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

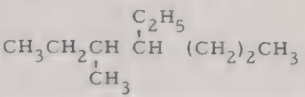
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 101

NAME	4-Ethyl-3-methylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$CH_3CH_2\underset{CH_3}{CH}\overset{C_2H_5}{CH}(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	167.	2
100	100.8	4
30	71.5	4
10	49.2	5
1	11.7	5
Pressure mm 25°C	2.4454	5
t_e	1192.	5
Density g/ml 20°C	0.753	2
d_4^t 25	0.749	2
30	0.745	4
a	0.769	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.422	2
25	1.419	2
30	1.417	4
"C"	0.7450	4
MR (Obs.)	48.0	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.022	5
A 75 to	6.9794	5
B 230 °C	1534.	5
C	207.	5
A* 75 to	1.47482	5
B* 195 °C	1443.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33464	5
B' 75 °C	1738.4	5
C'	225.	5
A'* 25 to	1.81669	5
B'* 75 °C	1637.9	5
Ac 230 to	7.8330	5
Bc t_c °C	2367.	5
Cc	313.	5
Cryos. A°		
consts. B°		
t_e °C	185.76	5

		Ref.
dt/dP °C/mm		
25°C	6.3987	5
BP	0.05218	5
t_e	0.0367	5
30 mm	0.7335	5
ΔHm cal/g		
ΔHv cal/g 25°C	79.37	5
30 mm	75.43	5
BP	64.27	5
t_e	62.17	5
t_e (d, e)	62.08	5
$\Delta Hv/T_e$	19.27	5
d 75 to	83.78	5
e 185 °C	0.1168	5
d' 25 to	81.49	5
e' 75 °C	0.0848	5
d_c g/ml	0.245	5
v_c ml/g	4.081	5
t_c °C	338.4	5
P_c mm	15764.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9338	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	25.40	5
30	24.34	5
40	23.31	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

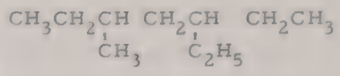
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 102

NAME	5-Ethyl-3-methylheptane					STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula $C_{10}H_{22}$		Molecular Weight 142.276	



$CH_3CH_2\underset{CH_3}{\underset{|}{CH}}\ CH_2\underset{C_2H_5}{\underset{|}{CH}}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	161.	2
100	95.6	4
30	66.6	4
10	44.6	5
1	7.6	5
Pressure mm 25°C	3.2076	5
t_e	1175.	5
Density g/ml 20°C	0.743	2
d_4^t 25	0.739	2
30	0.735	4
a	0.759	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.416	2
25	1.414	2
30	1.411	4
"C"	0.7449	4
MR (Obs.)	48.1	2
MR (Calc.)	48.38	5
(nD-d/2)	1.044	2
Dielectric	2.005	5
A 67 to	6.9722	5
B 214 °C	1511.	5
C	208.	5
A* 67 to	1.47331	5
B* 189 °C	1421.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33180	5
B' 67 °C	1715.7	5
C'	226.	5
A'* 25 to	1.82417	5
B'* 67 °C	1617.6	5
Ac 214 to	7.7702	5
Bc t_c °C	2266.	5
Cc	304.	5
Cryos. A° consts. B°		
t_e °C	178.92	5

		Ref.
dt/dP °C/mm		
25°C	4.9880	5
BP	0.05160	5
t_e	0.0367	5
30 mm	0.7246	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.62	5
30 mm	74.20	5
BP	63.23	5
t_e	61.23	5
t_e (d, e)	61.15	5
ΔHv/T_e	19.27	5
d 67 to	81.95	5
e 179 °C	0.1162	5
d' 25 to	79.68	5
e' 67 °C	0.0821	5
d_c g/ml	0.243	5
v_c ml/g	4.120	5
t_c °C	328.	5
P_c mm	15349.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9342	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	24.08	5
γ 30	23.06	5
40	22.07	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt. u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

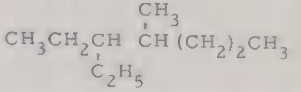
PURIFICATION: API

LITERATURE REFERENCES:

No. 103

NAME	3-Ethyl-4-methylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3CH_2\underset{C_2H_5}{CH}\;\overset{CH_3}{CH}(CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	167.	2
100	100.8	4
30	71.5	4
10	49.2	5
1	11.7	5
Pressure mm 25°C	2.4454	5
t_e	1191.	5
Density g/ml 20°C	0.753	2
d_4^t 25	0.749	2
30	0.745	4
a	0.769	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.422	2
25	1.419	2
30	1.417	4
"C"	0.7450	4
MR (Obs.)	48.0	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.022	5
A 75 to	6.9794	5
B 230 °C	1534.	5
C	207.	5
A* 75 to	1.47661	5
B* 195 °C	1443.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33464	5
B' 75 °C	1738.4	5
C'	225.	5
A'* 25 to	1.81669	5
B'* 75 °C	1637.9	5
Ac 230 to	7.8325	5
Bc t_c °C	2366.	5
Cc	313.	5
Cryos. A° consts. B°		
t_e °C	185.70	5

		Ref.
dt/dP °C/mm		
25°C	6.3987	5
BP	0.05218	5
t_e	0.0367	5
30 mm	0.7335	5
ΔHm cal/g		
ΔHv cal/g 25°C	79.37	5
30 mm	75.43	5
BP	64.20	5
t_e	62.10	5
t_e (d, e)	62.01	5
$\Delta Hv/T_e$	19.25	5
d 75 to	83.83	5
e 185 °C	0.1175	5
d' 25 to	81.49	5
e' 75 °C	0.0848	5
d_c g/ml	0.245	5
v_c ml/g	4.084	5
t_c °C	338.3	5
P_c mm	15750.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9327	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	25.40	5
30	24.34	5
40	23.31	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. 1. %/wt. u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

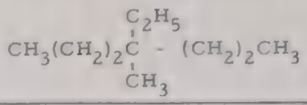
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 104

NAME	4-Ethyl-4-methylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$CH_3(CH_2)_2\overset{C_2H_5}{\underset{CH_3}{C}} - (CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	167.	2
100	100.8	4
30	71.5	4
10	49.2	5
1	11.7	5
Pressure mm 25°C	2.4454	5
t_e	1191.	5
Density g/ml 20°C	0.752	2
d_4^t 25	0.748	2
30	0.744	4
a	0.768	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.421	2
25	1.419	2
30	1.416	4
"C"	0.7443	4
MR (Obs.)	48.0	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.019	5
A 72 to	6.9794	5
B 228 °C	1534.	5
C	207.	5
A* 72 to	1.47661	5
B* 196 °C	1443.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33464	5
B' 72 °C	1738.4	5
C'	225.	5
A'* 25 to	1.81669	5
B'* 72 °C	1637.9	5
Ac 228 to	7.8314	5
Bc t_c °C	2364.	5
Cc	312.	5
Cryos. A° consts. B°		
t_e °C	185.70	5

		Ref.
dt/dP °C/mm 25°C	6.3987	5
BP	0.05218	5
t_e	0.0367	5
30 mm	0.7335	5
ΔHm cal/g		
ΔHv cal/g 25°C	79.37	5
30 mm	75.43	5
BP	64.20	5
t_e	62.10	5
t_e (d, e)	62.01	5
$\Delta Hv/T_e$	19.25	5
d 72 to	83.83	5
e 186 °C	0.1175	5
d' 25 to	81.49	5
e' 72 °C	0.0848	5
d_c g/ml	0.244	5
v_c ml/g	4.091	5
t_c °C	338.	5
P_c mm	15717.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9327	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	25.27	5
30	24.21	5
40	23.18	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

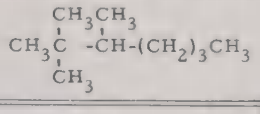
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 105

NAME	2, 2, 3-Trimethylheptane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	


$$\begin{array}{l} \quad\ \ CH_3\,CH_3 \\ CH_3\overset{|}{C}\ -\overset{|}{C}H\text{-}(CH_2)_3CH_3 \\ \quad\ \ \overset{|}{C}H_3 \end{array}$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	158.	2
100	92.9	4
30	64.2	4
10	42.2	5
1	5.5	5
Pressure		
mm 25°C	3.7001	5
t_e	1167.	5
Density		
g/ml 20°C	0.742	2
d_4^t 25	0.738	2
30	0.734	4
a	0.758	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.417	2
25	1.414	2
30	1.412	4
"C"	0.7476	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.008	5
A 65 to	6.9658	5
B 210 °C	1499.	5
C	209.	5
A* 65 to	1.46977	5
B* 185 °C	1410.0	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.32751	5
B' 65 °C	1703.2	5
C'	227.	5
A'* 25 to	1.81284	5
B'* 65 °C	1602.8	5
Ac 210 to	7.7423	5
Bc t_c °C	2224.	5
Cc	301.	5
Cryos. A° consts. B°		
t_e °C	175.52	5

		Ref.
dt/dP °C/mm		
25°C	4.37554	5
BP	0.05134	5
t_e	0.0367	5
30 mm	0.7204	5
ΔHm cal/g		
ΔHv cal/g		
25°C	76.71	5
30 mm	73.55	5
BP	62.68	5
t_e	60.72	5
t_e (d, e)	60.65	5
ΔHv/T_e	19.25	5
d 65 to	80.98	5
e 175 °C	0.1158	5
d' 25 to	78.73	5
e' 65 °C	0.0808	5
d_c g/ml	0.243	5
v_c ml/g	4.122	5
t_c °C	324.1	5
P_c mm	15244.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9345	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.95	5
γ 30	22.93	5
40	21.94	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

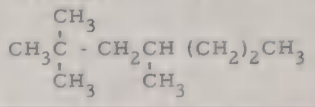
PURIFICATION: API

LITERATURE REFERENCES:

No. 106

NAME	2, 2, 4-Trimethylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}} - CH_2\underset{CH_3}{CH}\,(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	147.7	2
100	82.96	4
30	54.52	4
10	32.86	5
1	-3.27	5
Pressure mm 25°C	6.4065	5
t_e	1142.1	5
Density g/ml 20°C	0.7275	2
d_4^t 25	0.7237	2
30	0.7199	4
a	0.7427	4
b	-0.0_376	4
Ref. Index		
n_D 20°C	1.4092	2
25	1.4070	2
30	1.4046	4
"C"	0.7490	4
MR (Obs.)	48.37	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0454	2
Dielectric	1.986	5
A 54 to	6.8795	5
B 195 °C	1434.1	5
C	211.	5
A* 54 to	1.3879	5
B* 174 °C	1345.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.2458	5
B' 54 °C	1635.1	5
C'	229.	5
A'* 25 to	1.7359	5
B'* 54 °C	1535.2	5
Ac 195 to	7.5887	5
Bc t_c °C	2068.0	5
Cc	292.5	5
Cryos. A° consts. B°		
t_e °C	164.30	5

$T_R = 0.80\,T_c$

		Ref.
dt/dP °C/mm		
25°C	2.6734	5
BP	0.05125	5
t_e	0.03733	5
30 mm	0.7113	5
ΔHm cal/g		
ΔHv cal/g		
25°C	72.51	5
30 mm	70.29	5
BP	60.0	5
t_e	58.21	5
t_e (d, e)	58.16	5
$\Delta Hv/T_e$	18.93	5
d 54 to	76.32	5
e 164 °C	0.1105	5
d' 25 to	74.39	5
e' 54 °C	0.0752	5
d_c g/ml	0.231	5
v_c ml/g	4.329	5
t_c °C	309.	5
P_c mm	14147.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9383	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	22.13	5
30	21.22	5
40	20.33	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	100.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

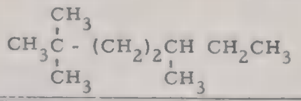
PURIFICATION: API

LITERATURE REFERENCES:

No. 107

NAME	2, 2, 5-Trimethylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}} - (CH_2)_2\underset{CH_3}{CH}\ CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	148.	2
100	84.2	4
30	56.0	4
10	34.5	5
1	-1.5	5
Pressure		
mm 25°C	5.7968	5
t_e	1144.	5
Density		
g/ml 20°C	0.726	2
d_4^t 25	0.722	2
30	0.718	4
a	0.742	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.409	2
25	1.407	2
30	1.404	4
"C"	0.7502	4
MR (Obs.)	48.5	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	1.985	5
A 56 to	6.9532	5
B 192 °C	1462.	5
C	211.	5
A* 56 to	1.45980	5
B* 174 °C	1372.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.32254	5
B' 56 °C	1665.3	5
C'	229.	5
A'* 25 to	1.81153	5
B'* 56 °C	1565.1	5
Ac 192 to	7.6549	5
Bc t_c °C	2085.	5
Cc	290.	5
Cryos. A°		
consts. B°		
t_e °C	164.36	5

		Ref.
dt/dP		
°C/mm		
25°C	2.900	5
BP	0.05036	5
t_e	0.0366	5
30 mm	0.7055	5
ΔHm cal/g		
ΔHv cal/g		
25°C	73.88	5
30 mm	71.52	5
BP	61.21	5
t_e	59.42	5
t_e (d, e)	59.38	5
ΔHv/T_e	19.32	5
d 56 to	77.79	5
e 164 °C	0.1120	5
d' 25 to	75.79	5
e' 56 °C	0.0763	5
d_c g/ml	0.239	5
v_c ml/g	4.176	5
t_c °C	308.	5
P_c mm	14639.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9395	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B_v^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.95	5
γ 30	20.99	5
40	20.07	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	100.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.80\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

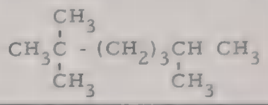
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 108

NAME	2,2,6-Trimethylheptane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	



$CH_3\overset{CH_3}{\underset{CH_3}{C}} - (CH_2)_3\underset{CH_3}{CH}\ CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	148.2	2
100	84.3	4
30	56.2	4
10	34.6	5
1	-1.3	5
Pressure mm 25°C	5.7529	5
t_e	1144.	5
Density g/ml 20°C	0.7195	2
d_4^t 25	0.7156	2
30	0.7117	4
a	0.7351	4
b	-0.0_378	4
Ref. Index n_D 20°C	1.4059	2
25	1.4036	2
30	1.4012	4
"C"	0.7516	4
MR (Obs.)	48.56	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0461	2
Dielectric	1.976	5
A | 56 to	6.9524	5
B | 182 °C	1462.	5
C	211.	5
A* | 56 to	1.45874	5
B* | 175 °C	1372.6	5
K		
c		
t_k | to		
t_x | °C		
A' | 25 to	7.32148	5
B' | 56 °C	1665.6	5
C'	229.	5
A'* 25 to	1.81041	5
B'* 56 °C	1565.4	5
Ac | 182 to	7.6521	5
Bc | t_c °C	2083.	5
Cc	289.	5
Cryos. A° consts. B°		
t_e °C	164.59	5

		Ref.
dt/dP °C/mm		
25°C	2.9204	5
BP	0.05039	5
t_e	0.0366	5
30 mm	0.7059	5
ΔHm cal/g		
ΔHv cal/g		
25°C	73.92	5
30 mm	71.54	5
BP	61.22	5
t_e	59.43	5
t_e (d, e)	59.39	5
$\Delta Hv/T_e$	19.31	5
d | 56 to	77.83	5
e | 165 °C	0.1121	5
d' | 25 to	75.83	5
e' | 56 °C	0.0764	5
d_c g/ml	0.237	5
v_c ml/g	4.214	5
t_c °C	308.	5
P_c mm	14510.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9395	5
t_c	0.24	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v | to A^v | °C		
(B^v) | to (A^v) | °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f | to g | °K h |		
f' | to g' | °K h' |		
m | to n | °K o |		
m' | to n' | °K o' |		
Surface tension dynes/cm. 20°C	21.17	5
γ 30	20.27	5
40	19.39	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt. u.		
Dispersion	98.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.80\ T_C$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

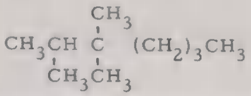
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 109

NAME	2, 3, 3-Trimethylheptane	STRUCTURAL FORMULA



$$\begin{array}{l} CH_3 \\ CH_3\underset{CH_3}{CH}\ \underset{CH_3}{C}\ \ (CH_2)_3CH_3 \end{array}$$

Mole % Pur.	Ref.	Molecular Formula	Molecular Weight
		$C_{10}H_{22}$	142.276

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C 760 mm	160.	2
100	94.7	4
30	65.8	4
10	43.8	5
1	6.9	5
Pressure mm 25°C	3.3674	5
t_e	1172.	5
Density g/ml 20°C	0.7488	2
d_4^t 25	0.7448	2
30	0.7408	4
a	0.7648	4
b	$-0.0_{3}80$	4
Ref. Index n_D 20°C	1.4202	2
25	1.4178	2
30	1.4153	4
"C"	0.7461	4
MR (Obs.)	48.10	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0458	2
Dielectric	2.017	5
A 66 to	6.9710	5
B 214 °C	1508.	5
C	209.	5
A* 66 to	1.47305	5
B* 188 °C	1418.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33132	5
B' 66 °C	1711.9	5
C'	227.	5
A'* 25 to	1.81589	5
B'* 66 °C	1611.5	5
Ac 214 to	7.7679	5
Bc t_c °C	2261.	5
Cc	304.	5
Cryos. A° consts. B°		
t_e °C	177.78	5

		Ref.
dt/dP °C/mm 25°C	4.76914	5
BP	0.05150	5
t_e	0.0367	5
30 mm	0.7231	5
ΔHm cal/g		
ΔHv cal/g 25°C	77.33	5
30 mm	74.00	5
BP	63.07	5
t_e	61.08	5
t_e (d, e)	61.00	5
$\Delta Hv/T_e$	19.27	5
d 66 to	81.64	5
e 178 °C	0.1161	5
d' 25 to	79.38	5
e' 66 °C	0.0817	5
d_c g/ml	0.245	5
v_c ml/g	4.075	5
t_c °C	328.	5
P_c mm	15519.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9343	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A_v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. 20°C γ	24.84	5
30	23.79	5
40	22.78	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt. u.		
Dispersion	96.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

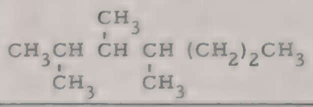
PURIFICATION: API

LITERATURE REFERENCES:

No. 110

NAME	2, 3, 4-Trimethylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\overset{CH_3}{CH}\underset{CH_3}{CH}(CH_2)_2CH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	163.	2
100	97.3	4
30	68.3	4
10	46.1	5
1	9.0	5
Pressure		
mm 25°C	2.9372	5
t_e	1181.	5
Density		
g/ml 20°C	0.751	2
d_4^t 25	0.747	2
30	0.743	4
a	0.767	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.421	2
25	1.418	2
30	1.416	4
"C"	0.7453	4
MR (Obs.)	48.0	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.019	5
A 68 to	6.9746	5
B 224 °C	1519.	5
C	208.	5
A* 68 to	1.47382	5
B* 191 °C	1428.9	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33275	5
B' 68 °C	1723.3	5
C'	226.	5
A'* 25 to	1.81623	5
B'* 68 °C	1622.8	5
Ac 224 to	7.7955	5
Bc t_c °C	2305.	5
Cc	308.	5
Cryos. A° consts. B°		
t_e °C	181.20	5

		Ref.
dt/dP °C/mm		
25°C	5.4068	5
BP	0.05179	5
t_e	0.0367	5
30 mm	0.7276	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.20	5
30 mm	74.61	5
BP	63.58	5
t_e	61.55	5
t_e (d, e)	61.47	5
$\Delta Hv/T_e$	19.27	5
d 68 to	82.56	5
e 181 °C	0.1164	5
d' 25 to	80.28	5
e' 68 °C	0.0830	5
d_c g/ml	0.245	5
v_c ml/g	4.078	5
t_c °C	333.	5
P_c mm	15637.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9341	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	25.13	5
γ 30	24.08	5
40	23.05	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

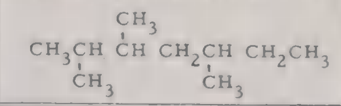
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 111

NAME	2,3,5-Trimethylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$CH_3\underset{CH_3}{CH}\;\overset{CH_3}{CH}\;CH_2\underset{CH_3}{CH}\;CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	157.	2
100	91.05	4
30	62.05	4
10	39.97	5
1	3.12	5
Pressure mm 25°C	4.2557	5
t_e	1164.4	5
Density g/ml 20°C	0.741	2
d_4^t 25	0.737	2
30	0.733	4
a	0.757	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.416	2
25	1.414	2
30	1.411	4
"C"	0.7469	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.005	5
A 62 to	6.89044	5
B 210 °C	1468.2	5
C	209.2	5
A* 62 to	1.39506	5
B* 185 °C	1379.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.24970	5
B' 62 °C	1669.6	5
C'	227.2	5
A'* 25 to	1.73638	5
B'* 62 °C	1569.4	5
Ac 210 to	7.66447	5
Bc t_c °C	2190.1	5
Cc	302.1	5
Cryos. A° consts. B°		
t_e °C	174.74	5

		Ref.
dt/dP °C/mm 25°C	3.8869	5
BP	0.05219	5
t_e	0.03744	5
30 mm	0.7253	5
ΔHm cal/g		
ΔHv cal/g 25°C	75.08	5
30 mm	72.14	5
BP	61.37	5
t_e	59.43	5
t_e (d, e)	59.36	5
ΔHv/T_e	18.88	5
d 62 to	79.19	5
e 175 °C	0.1135	5
d' 25 to	77.06	5
e' 62 °C	0.0793	5
d_c g/ml	0.231	5
v_c ml/g	4.327	5
t_c °C	323.	5
P_c mm	14494.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9343	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	23.82	5
30	22.81	5
40	21.82	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

TR = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

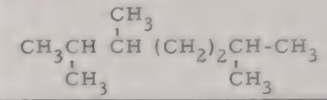
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 112

NAME	2, 3, 6-Trimethylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$CH_3\underset{CH_3}{CH}\,\overset{CH_3}{CH}\,(CH_2)_2\underset{CH_3}{CH}\text{-}CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	155.7	2
100	89.92	4
30	60.99	4
10	38.97	5
1	2.22	5
Pressure		
mm 25°C	4.5093	5
t_e	1161.4	5
Density		
g/ml 20°C	0.7345	2
d_4^t 25	0.7305	2
30	0.7265	4
a	0.7505	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.4125	2
25	1.4101	2
30	1.4077	4
"C"	0.7475	4
MR (Obs.)	48.25	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0453	2
Dielectric	1.995	5
A 60 to	6.88867	5
B 207 °C	1463.3	5
C	209.4	5
A* 60 to	1.39367	5
B* 183 °C	1374.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.24889	5
B' 60 °C	1664.6	5
C'	227.4	5
A'* 25 to	1.73605	5
B'* 60 °C	1564.5	5
Ac 207 to	7.64810	5
Bc t_c °C	2165.1	5
Cc	299.6	5
Cryos. A° consts. B°		
t_e °C	173.29	5

		Ref.
dt/dP °C/mm		
25°C	3.6863	5
BP	0.05206	5
t_e	0.03743	5
30 mm	0.7234	5
ΔHm cal/g		
ΔHv cal/g		
25°C	74.71	5
30 mm	71.88	5
BP	61.18	5
t_e	59.26	5
t_e (d, e)	59.19	5
ΔHv/T_e	18.88	5
d 60 to	78.77	5
e 173 °C	0.1130	5
d' 25 to	76.68	5
e' 60 °C	0.0787	5
d_c g/ml	0.229	5
v_c ml/g	4.368	5
t_c °C	320.	5
P_c mm	14287.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9349	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	23.00	5
30	22.01	5
40	21.05	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

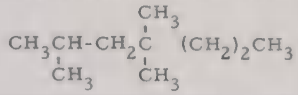
PURIFICATION: API

LITERATURE REFERENCES:

No. 113

NAME	2, 4, 4-Trimethylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3CH(CH_3)\text{-}CH_2C(CH_3)_2\ (CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	153.	2
100	87.56	4
30	58.80	4
10	36.90	5
1	0.3555	5
Pressure mm 25°C	5.0832	5
t_e	1108.	5
Density g/ml 20°C	0.733	2
d_4^t 25	0.729	2
30	0.723	4
a	0.7590	4
b	-0.0012	4
Ref. Index n_D 20°C	1.412	2
25	1.410	2
30	1.407	4
"C"	0.7462	4
MR (Obs.)	48.3	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	1.994	5
A 59 to	6.88497	5
B 197 °C	1453.2	5
C	209.9	5
A* 59 to	1.39259	5
B* 178 °C	1364.7	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.24720	5
B' 59 °C	1654.4	5
C'	228.	5
A'* 20 to	1.73534	5
B'* 59 °C	1554.4	5
Ac 197 to	7.58044	5
Bc t_c °C	2068.0	5
Cc	287.7	5
Cryos. A° consts. B°		
t_e °C	167.81	5

		Ref.
dt/dP °C/mm		
25°C	3.3037	5
BP	0.05179	5
t_e	0.03743	5
30 mm	0.7194	5
ΔHm cal/g		
ΔHv cal/g 25°C	73.95	5
30 mm	71.33	5
BP	60.68	5
t_e	58.77	5
t_e (d, e)	58.73	5
ΔHv/T_e	18.85	5
d 59 to	77.99	5
e 168 °C	0.1133	5
d' 20 to	75.89	5
e' 59 °C	0.0775	5
d_c g/ml	0.208	5
v_c ml/g	4.804	5
t_c °C	307.	5
P_c mm	12706.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9352	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	23.06	5
γ 30	21.59	5
40	20.18	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

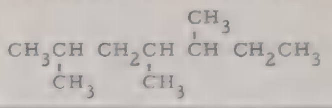
PURIFICATION: API

LITERATURE REFERENCES:

No. 114

NAME	2, 4, 5-Trimethylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\ CH_2\underset{CH_3}{CH}\ \overset{CH_3}{CH}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	157.	2
100	91.05	4
30	62.05	4
10	39.97	5
1	3.12	5
Pressure		
mm 25°C	4.2557	5
t_e	1165.1	5
Density		
g/ml 20°C	0.741	2
d^t_4 25	0.737	2
30	0.733	4
a	0.757	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.4160	2
25	1.4137	2
30	1.4113	4
"C"	0.7469	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.005	5
A 62 to	6.89044	5
B 210 °C	1468.2	5
C	209.	5
A* 62 to	1.39418	5
B* 185 °C	1378.9	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.24970	5
B' 62 °C	1669.6	5
C'	227.	5
A'* 20 to	1.73638	5
B'* 62 °C	1569.4	5
Ac 210 to	7.6647	5
Bc t_c °C	2190.	5
Cc	302.	5
Cryos. A° consts. B°		
t_e °C	174.74	5

		Ref.
dt/dP °C/mm		
25°C	3.8869	5
BP	0.05219	5
t_e	0.0374	5
30 mm	0.7253	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.08	5
30 mm	72.14	5
BP	61.40	5
t_e	59.48	5
t_e (d, e)	59.39	5
ΔHv/T_e	18.89	5
d 62 to	79.16	5
e 175 °C	0.1131	5
d' 20 to	77.06	5
e' 62 °C	0.0793	5
d_c g/ml	0.231	5
v_c ml/g	4.325	5
t_c °C	323.	5
P_c mm	14500.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9348	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.82	5
γ 30	22.81	5
40	21.82	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

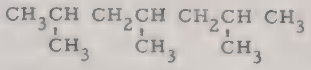
REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 115

NAME	2,4,6-Trimethylheptane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	 $CH_3\underset{CH_3}{CH}\,CH_2\underset{CH_3}{CH}\,CH_2\underset{CH_3}{CH}\,CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	144.8	2
100	80.41	4
30	52.13	4
10	30.6	5
1	-5.3	5
Pressure mm 25°C	7.2873	5
t_e	1133.7	5
Density g/ml 20°C	0.7225	2
d_4^t 25	0.7184	2
30	0.7143	4
a	0.7389	4
b	-0.0382	4
Ref. Index n_D 20°C	1.4071	2
25	1.4046	2
30	1.4022	4
"C"	0.7505	4
MR (Obs.)	48.48	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0459	2
Dielectric	1.980	5
A 52 to	6.87377	5
B 188 °C	1422.6	5
C	211.5	5
A* 52 to	1.38504	5
B* 171 °C	1334.4	5
K		
c		
t_k to		
t_x °C		
A' 5 to	7.24226	5
B' 52 °C	1623.5	5
C'	229.	5
A'* 15 to	1.73344	5
B'* 52 °C	1523.7	5
Ac 188 to	7.55659	5
Bc t_c °C	2021.3	5
Cc	288.3	5
Cryos. A°		
consts. B°		
t_e °C	161.00	5

		Ref.
dt/dP °C/mm		
25°C	2.3773	5
BP	0.05099	5
t_e	0.0373	5
30 mm	0.7071	5
ΔHm cal/g		
ΔHv cal/g 25°C	71.69	5
30 mm	69.68	5
BP	59.47	5
t_e	57.73	5
t_e (d, e)	57.68	5
ΔHv/T_e	18.92	5
d 52 to	75.43	5
e 161 °C	0.1102	5
d' 15 to	73.53	5
e' 52 °C	0.0739	5
d_c g/ml	0.226	5
v_c ml/g	4.418	5
t_c °C	303.	5
P_c mm	13721.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9385	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.53	5
30	20.57	5
40	19.63	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.80\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

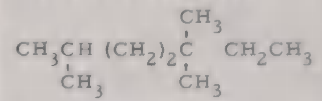
PURIFICATION: API

LITERATURE REFERENCES:

No. 116

NAME	2, 5, 5-Trimethylheptane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}(CH_2)_2\overset{CH_3}{\underset{CH_3}{C}}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	152.80	2
100	87.3	4
30	58.5	4
10	36.6	5
1	0.1	5
Pressure		
mm 25°C	5.1621	5
t_e	1153.	5
Density		
g/ml 20°C	0.7368	2
d_4^t 25	0.7328	2
30	0.7288	4
a	0.7528	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.4136	2
25	1.4112	2
30	1.4088	4
"C"	0.7471	4
MR (Obs.)	48.21	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0452	2
Dielectric		
A 59 to	6.8794	5
B 205 °C	1451.	5
C	210.	5
A* 59 to	1.38718	5
B* 180 °C	1362.	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.24154	5
B' 59 °C	1651.6	5
C'	228.	5
A'* 20 to	1.72983	5
B'* 59 °C	1551.5	5
Ac 205 to	7.6227	5
Bc t_c °C	2130.	5
Cc	298.	5
Cryos. A° consts. B°		
t_e °C	170.01	5

		Ref.
dt/dP °C/mm		
25°C	3.2598	5
BP	0.05184	5
t_e	0.0375	5
30 mm	0.7195	5
ΔHm cal/g		
ΔHv cal/g		
25°C	73.80	5
30 mm	71.21	5
BP	60.60	5
t_e	58.74	5
t_e (d, e)	58.67	5
$\Delta Hv/T_e$	18.86	5
d 59 to	77.80	5
e 170 °C	0.1125	5
d' 15 to	75.74	5
e' 59 °C	0.0773	5
d_c g/ml	0.230	5
v_c ml/g	4.351	5
t_c °C	317.	5
P_c mm	14258.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9351	5
t_c	0.24	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension dynes/cm. γ 20°C	23.29	5
30	22.29	5
40	21.32	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

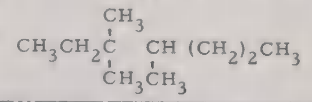
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 117

NAME	3, 3, 4-Trimethylheptane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	



$CH_3CH_2C(CH_3)(CH_3)CH(CH_3)(CH_2)_2CH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	164.	2
100	97.1	4
30	67.7	4
10	45.3	5
1	7.9	5
Pressure		
mm 25°C	3.1136	5
t_e	1184.	5
Density		
g/ml 20°C	0.757	2
d_4^t 25	0.753	2
30	0.749	4
a	0.773	4
b	$-0.0_{3}8$	4
Ref. Index		
n_D 20°C	1.424	2
25	1.422	2
30	1.420	4
"C"	0.7444	4
MR (Obs.)	47.9	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.028	5
A 68 to	6.8988	5
B 227 °C	1494.	5
C	208.	5
A* 68 to	1.39669	5
B* 193 °C	1403.7	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.25291	5
B' 68 °C	1695.6	5
C'	226.	5
A'* 20 to	1.73706	5
B'* 68 °C	1595.4	5
Ac 227 to	7.7400	5
Bc t_c °C	2310.	5
Cc	313.	5
Cryos. A° consts. B°		
t_e °C	182.73	5

		Ref.
dt/dP °C/mm		
25°C	5.1760	5
BP	0.05288	5
t_e	0.0374	5
30 mm	0.7358	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.06	5
30 mm	73.54	5
BP	62.56	5
t_e	60.51	5
t_e (d, e)	60.42	5
ΔHv/T_e	18.88	5
d 68 to	81.27	5
e 183 °C	0.1141	5
d' 20 to	79.12	5
e' 68 °C	0.0824	5
d_c g/ml	0.236	5
v_c ml/g	4.246	5
t_c °C	336.	5
P_c mm	15079.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9337	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	25.95	5
γ 30	24.87	5
40	23.82	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

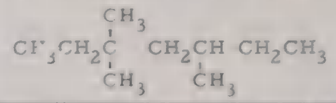
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 118

NAME	3, 3, 5-Trimethylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\ CH_2\underset{CH_3}{CH}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	155.68	2
100	89.9	4
30	60.96	4
10	38.9	5
1	2.2	5
Pressure mm 25°C	4.5187	5
t_e	1164.	5
Density g/ml 20°C	0.7428	2
d^t_4 25	0.7388	2
30	0.7348	4
a	0.7588	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.4170	2
25	1.4146	2
30	1.4128	4
"C"	0.7468	4
MR (Obs.)	48.17	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0456	2
Dielectric	2.008	5
A 61 to	6.8877	5
B 209 °C	1463.	5
C	209.	5
A* 61 to	1.39006	5
B* 183 °C	1373.2	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.24789	5
B' 61 °C	1664.2	5
C'	227.	5
A'* 20 to	1.73506	5
B'* 61 °C	1564.1	5
Ac 209 to	7.6555	5
Bc t_c °C	2176.	5
Cc	301.	5
Cryos. A° consts. B°		
t_e °C	173.35	5

		Ref.
dt/dP °C/mm 25°C	3.6798	5
BP	0.05207	5
t_e	0.0374	5
30 mm	0.7234	5
ΔHm cal/g		
ΔHv cal/g 25°C	74.69	5
30 mm	71.86	5
BP	61.26	5
t_e	59.35	5
t_e (d, e)	59.28	5
ΔHv/T_e	18.91	5
d 61 to	78.68	5
e 173 °C	0.1119	5
d' 20 to	76.66	5
e' 61 °C	0.0787	5
d_c g/ml	0.232	5
v_c ml/g	4.303	5
t_c °C	322.	5
P_c mm	14542.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9365	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^V to		
A^V °C		
(B^V) to		
(A^V) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	24.05	5
γ 30	23.03	5
40	22.04	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

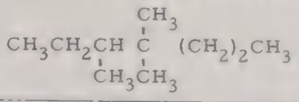
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 119

NAME	3,4,4-Trimethylheptane				
Mole % Pur.		Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	STRUCTURAL FORMULA


$CH_3CH_2\underset{CH_3}{CH}\,\overset{CH_3}{\underset{CH_3}{C}}\,(CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	164.	2
100	97.1	4
30	67.7	4
10	45.3	5
1	7.9	5
Pressure		
mm 25°C	3.1136	5
t_e	1184.	5
Density		
g/ml 20°C	0.757	2
d_4^t 25	0.753	2
30	0.749	4
a	0.773	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.424	2
25	1.422	2
30	1.420	4
"C"	0.7444	4
MR (Obs.)	47.9	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.028	5
A 68 to	6.8988	5
B 227 °C	1494.	5
C	208.	5
A* 68 to	1.39669	5
B* 193 °C	1403.7	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.25291	5
B' 68 °C	1695.6	5
C'	226.	5
A'* 20 to	1.73706	5
B'* 68 °C	1595.4	5
Ac 227 to	7.7400	5
Bc t_c °C	2310.	5
Cc	313.	5
Cryos. A°		
consts. B°		
t_e °C	182.73	5

		Ref.
dt/dP		
°C/mm		
25°C	5.1760	5
BP	0.05288	5
t_e	0.0374	5
30 mm	0.7358	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.06	5
30 mm	73.54	5
BP	62.56	5
t_e	60.51	5
t_e (d, e)	60.42	5
$\Delta Hv/T_e$	18.88	5
d 68 to	81.27	5
e 183 °C	0.1141	5
d' 20 to	79.12	5
e' 68 °C	0.0824	5
d_c g/ml	0.236	5
v_c ml/g	4.246	5
t_c °C	336.	5
P_c mm	15079.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9337	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	25.95	5
γ 30	24.87	5
40	23.82	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

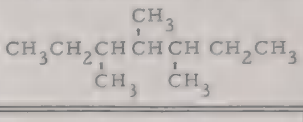
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 120

NAME	3, 4, 5-Trimethylheptane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$CH_3CH_2\underset{CH_3}{CH}\overset{CH_3}{CH}\underset{CH_3}{CH}CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	164.	2
100	96.97	4
30	67.56	4
10	45.16	5
1	7.77	5
Pressure mm 25°C	3.146	5
t_e	1190.3	5
Density g/ml 20°C	0.759	2
d_4^t 25	0.755	2
30	0.751	4
a	0.775	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.424	2
25	1.422	2
30	1.419	4
"C"	0.7424	4
MR (Obs.)	47.832	4
MR (Calc.)	48.380	5
(nD-d/2)	1.044	2
Dielectric	2.028	5
A 68 to	6.89880	5
B 225 °C	1494.	5
C	208.	5
A* 68 to	1.38938	5
B* 193 °C	1401.63	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.25295	5
B' 68 °C	1695.56	5
C'	226.	5
A'* 20 to	1.73702	5
B'* 68 °C	1595.25	5
Ac 225 to	7.74352	5
Bc t_c °C	2315.88	5
Cc	314.01	5
Cryos. A° consts. B°		
t_e °C	182.78	5

		Ref.
dt/dP °C/mm		
25°C	5.1294	5
BP	0.05288	5
t_e	0.03729	5
30 mm	0.7358	5
ΔHm cal/g		
ΔHv cal/g		
25°C	76.96	5
30 mm	73.47	5
BP	62.56	5
t_e	60.76	5
t_e (d, e)	60.44	5
$\Delta Hv/T_e$	18.96	5
d 68 to	81.12	5
e 183 °C	0.1131	5
d' 20 to	79.01	5
e' 68 °C	0.0820	5
d_c g/ml	0.245	5
v_c ml/g	4.080	5
t_c °C	335.9	5
P_c mm	15182.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9383	5
t_c	0.232	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g to °K h		
f' g' to °K h'		
m n to °K o		
m' n' to °K o'		
Surface tension dynes/cm. γ 20°C	26.22	1
30	25.13	1
40	24.07	1
Parachor [P] 20°C	424.19	4
30	424.19	4
40	424.18	4
Sugd.	424.2	5
Exp. L. l. %/wt. u. Dispersion		
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.82\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

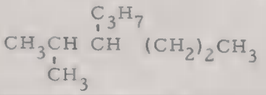
PURIFICATION: API

LITERATURE REFERENCES:

No. 121

NAME	3-isopropyl-2-methylhexane				
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276		

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\ \overset{C_3H_7}{CH}\ (CH_2)_2CH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C 760 mm	163.	2
100	97.3	4
30	68.3	4
10	46.1	5
1	9.0	5
Pressure mm 25°C	2.9372	5
t_e	1181.	5
Density g/ml 20°C	0.751	2
d_4^t 25	0.747	2
30	0.743	4
a	0.767	4
b	-0.038	4
Ref. Index n_D 20°C	1.421	2
25	1.418	2
30	1.416	4
"C"	0.7453	4
MR (Obs.)	48.0	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.019	5
A 68 to	6.9746	5
B 224 °C	1519.	5
C	208.	5
A* 68 to	1.47382	5
B* 191 °C	1428.9	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.33275	5
B' 68 °C	1723.3	5
C'	226.	5
A'* 20 to	1.81623	5
B'* 68 °C	1622.8	5
Ac 224 to	7.7955	5
Bc t_c °C	2305.	5
Cc	308.	5
Cryos. A°		
consts. B°		
t_e °C	181.20	5

		Ref.
dt/dP °C/mm 25°C	5.4068	5
BP	0.05179	5
t_e	0.0367	5
30 mm	0.7276	5
ΔHm cal/g		
ΔHv cal/g 25°C	78.20	5
30 mm	74.61	5
BP	63.58	5
t_e	61.55	5
t_e (d, e)	61.47	5
ΔHv/T_e	19.27	5
d 68 to	82.56	5
e 181 °C	0.1164	5
d' 20 to	80.28	5
e' 68 °C	0.0830	5
d_c g/ml	0.245	5
v_c ml/g	4.075	5
t_c °C	333.	5
P_c mm	15637.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9341	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	25.13	5
γ 30	24.08	5
40	23.05	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

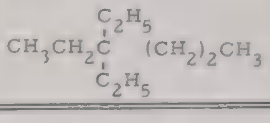
PURIFICATION: API

LITERATURE REFERENCES:

No. 122

NAME	3, 3-Diethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3CH_2\overset{C_2H_5}{\underset{C_2H_5}{C}}(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	166.3	2
100	100.2	4
30	70.9	4
10	48.6	5
1	11.3	5
Pressure mm 25°C	2.5272	5
t_e	1190.	5
Density g/ml 20°C	0.767	2
d_4^t 25	0.763	2
30	0.759	4
a	0.783	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.428	2
25	1.426	2
30	1.424	4
"C"	0.7412	4
MR (Obs.)	47.7	2
MR (Calc.)	48.38	5
(nD-d/2)	1.044	2
Dielectric	2.039	5
A 71 to	6.9780	5
B 230 °C	1531.	5
C	207.	5
A* 71 to	1.4750	5
B* 195 °C	1440.8	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.33375	5
B' 71 °C	1735.6	5
C'	225.	5
A'* 20 to	1.81605	5
B'* 71 °C	1635.1	5
Ac 230 to	7.8419	5
Bc t_c °C	2379.	5
Cc	315.	5
Cryos. consts. A°		
B°		
t_e °C	184.93	5

		Ref.
dt/dP °C/mm		
25°C	6.2085	5
BP	0.05212	5
t_e	0.0367	5
30 mm	0.7325	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.16	5
30 mm	75.27	5
BP	64.12	5
t_e	62.03	5
t_e (d, e)	61.94	5
ΔHv/T_e	19.26	5
d 71 to	83.57	5
e 185 °C	0.1170	5
d' 20 to	81.27	5
e' 71 °C	0.0845	5
d_c g/ml	0.251	5
v_c ml/g	3.981	5
t_c °C	340.	5
P_c mm	16196.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9475	5
t_e	0.9333	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	27.35	5
30	26.22	5
40	25.13	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	95.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

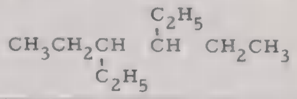
PURIFICATION: API

LITERATURE REFERENCES:

No. 123

NAME	3, 4-Diethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3CH_2\underset{C_2H_5}{CH}\ \overset{C_2H_5}{CH}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	162.	2
100	96.4	4
30	67.5	4
10	45.3	5
1	8.3	5
Pressure		
mm 25°C	3.0744	5
t_e	1178.	5
Density		
g/ml 20°C	0.754	2
d_4^t 25	0.750	2
30	0.746	4
a	0.770	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.420	2
25	1.418	2
30	1.415	4
"C"	0.7407	4
MR (Obs.)	47.8	2
MR (Calc.)	48.38	5
(nD-d/2)	1.043	2
Dielectric	2.016	5
A 67 to	6.9734	5
B 223 °C	1515.	5
C	208.	5
A* 67 to	1.47356	5
B* 190 °C	1425.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.33227	5
B' 67 °C	1719.5	5
C'	226.	5
A'* 25 to	1.81612	5
B'* 67 °C	1619.0	5
Ac 223 to	7.7900	5
Bc t_c °C	2296.	5
Cc	307.	5
Cryos. A° consts. B°		
t_e °C	180.06	5

		Ref.
dt/dP °C/mm		
25°C	5.1849	5
BP	0.05169	5
t_e	0.0367	5
30 mm	0.7261	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.91	5
30 mm	74.41	5
BP	63.41	5
t_e	61.40	5
t_e (d, e)	61.31	5
ΔHv/T_e	19.27	5
d 67 to	82.25	5
e 180 °C	0.1163	5
d' 25 to	79.98	5
e' 67 °C	0.0826	5
d_c g/ml	0.247	5
v_c ml/g	4.050	5
t_c °C	332.	5
P_c mm	15718.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9342	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	25.54	5
γ 30	24.47	5
40	23.43	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	94.6	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

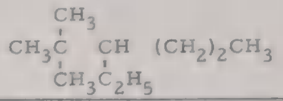
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 124

NAME	3-Ethyl-2, 2-dimethylhexane					STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula $C_{10}H_{22}$		Molecular Weight 142.276	



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ \underset{C_2H_5}{CH}\ (CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	159.	2
100	92.8	4
30	63.7	4
10	41.5	5
1	4.5	5
Pressure mm 25°C	3.8974	5
t_e	1170.	5
Density g/ml 20°C	0.749	2
d_4^t 25	0.745	2
30	0.741	4
a	0.765	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.420	2
25	1.418	2
30	1.415	4
"C"	0.7456	4
MR (Obs.)	48.1	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.016	5
A 64 to	6.8921	5
B 213 °C	1475.	5
C	209.	5
A* 64 to	1.39567	5
B* 187 °C	1386.2	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.24984	5
B' 64 °C	1676.7	5
C'	227.	5
A'* 25 to	1.73581	5
B'* 64 °C	1576.5	5
Ac 213 to	7.6877	5
Bc t_c °C	2227.	5
Cc	306.	5
Cryos. A° consts. B°		
t_e °C	177.00	5

		Ref.
dt/dP °C/mm		
25°C	4.2134	5
BP	0.05239	5
t_e	0.0375	5
30 mm	0.7284	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.63	5
30 mm	72.53	5
BP	61.67	5
t_e	59.70	5
t_e (d, e)	59.62	5
ΔHv/T_e	18.87	5
d 64 to	79.79	5
e 177 °C	0.1139	5
d' 25 to	77.63	5
e' 64 °C	0.0801	5
d_c g/ml	0.234	5
v_c ml/g	4.281	5
t_c °C	327.	5
P_c mm	14748.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9475	5
t_e	0.9336	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	24.87	5
γ 30	23.82	5
40	22.80	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

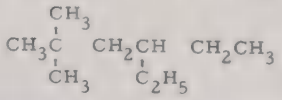
PURIFICATION: API

LITERATURE REFERENCES:

No. 125

NAME	4-Ethyl-2, 2-dimethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ \ CH_2\underset{C_2H_5}{CH}\ \ CH_2CH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	147.	2
100	82.7	4
30	54.4	4
10	32.8	5
1	-3.2	5
Pressure		
mm 25°C	6.4021	5
t_e	1140.	5
Density		
g/ml 20°C	0.733	2
d_4^t 25	0.729	2
30	0.725	4
a	0.749	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.4131	2
25	1.4107	2
30	1.4083	4
"C"	0.7501	4
MR (Obs.)	48.4	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0466	2
Dielectric	1.997	5
A 54 to	6.9052	5
B 192 °C	1441.	5
C	211.	5
A* 54 to	1.41441	5
B* 173 °C	1352.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.27326	5
B' 54 °C	1643.1	5
C'	229.	5
A'* 25 to	1.76324	5
B'* 54 °C	1543.0	5
Ac 192 to	7.6092	5
Bc t_c °C	2068.	5
Cc	291.	5
Cryos. A°		
consts. B°		
t_e °C	163.38	5

		Ref.
dt/dP		
°C/mm		
25°C	2.6651	5
BP	0.05084	5
t_e	0.0371	5
30 mm	0.7080	5
ΔHm cal/g		
ΔHv cal/g		
25°C	72.79	5
30 mm	70.57	5
BP	60.28	5
t_e	58.50	5
t_e (d, e)	58.46	5
$\Delta Hv/T_e$	19.07	5
d 54 to	76.62	5
e 163 °C	0.1112	5
d' 25 to	74.67	5
e' 54 °C	0.0752	5
d_c g/ml	0.235	5
v_c ml/g	4.249	5
t_c °C	308.	5
P_c mm	14390.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9384	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.81	5
γ 30	21.82	5
40	20.87	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.80\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

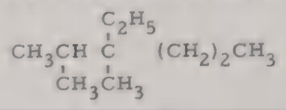
PURIFICATION: API

LITERATURE REFERENCES:

No. 126

NAME	3-Ethyl-2, 3-dimethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\underset{\underset{CH_3}{|}}{CH}\overset{\overset{C_2H_5}{|}}{\underset{\underset{CH_3}{|}}{C}}(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	169.	2
100	101.5	4
30	71.8	4
10	49.2	5
1	11.4	5
Pressure mm 25°C	2.4826	5
t_e	1197.	5
Density g/ml 20°C	0.765	2
d_4^t 25	0.760	2
30	0.755	4
a	0.785	4
b	-0.0_21	4
Ref. Index		
n_D 20°C	1.427	2
25	1.424	2
30	1.421	4
"C"	0.7415	4
MR (Obs.)	47.8	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.036	5
A 72 to 229 °C	6.9053	5
B	1513.	5
C	207.	5
A* 72 to 198 °C	1.40029	5
B*	1422.1	5
K		
c		
t_k to t_x °C		
A' 25 to 72 °C	7.25592	5
B'	1714.5	5
C'	225.	5
A'* 25 to 72 °C	1.73827	5
B'*	1614.2	5
Ac 229 to t_c °C	7.7601	5
Bc	2347.	5
Cc	314.	5
Cryos. A° consts. B°		
t_e °C	188.39	5

		Ref.
dt/dP °C/mm		
25°C	6.3714	5
BP	0.05337	5
t_e	0.0375	5
30 mm	0.7432	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.52	5
30 mm	74.56	5
BP	63.33	5
t_e	61.19	5
t_e (d, e)	61.09	5
$\Delta Hv/T_e$	18.86	5
d 72 to 188 °C	82.85	5
e	0.1155	5
d' 25 to 72 °C	80.63	5
e'	0.0846	5
d_c g/ml	0.225	5
v_c ml/g	4.447	5
t_c °C	339.	5
P_c mm	14482.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9323	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	27.06	5
γ 30	25.67	5
40	24.34	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

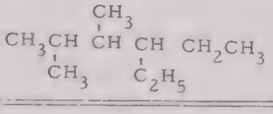
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 127

NAME	4-Ethyl-2, 3-dimethylhexane			
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	STRUCTURAL FORMULA



$CH_3CH(CH_3)CH(CH_3)CH(C_2H_5)CH_2CH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C 760 mm	164.	2
100	97.1	4
30	67.7	4
10	45.3	5
1	7.9	5
Pressure mm 25°C	3.1136	5
t_e	1184.	5
Density g/ml 20°C	0.759	2
d_4^t 25	0.755	2
30	0.751	4
a	0.775	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.424	2
25	1.422	2
30	1.419	4
"C"	0.7424	4
MR (Obs.)	47.8	2
MR (Calc.)	48.38	5
(nD-d/2)	1.044	2
Dielectric	2.028	5
A 68 to 227 °C	6.8988	5
B	1494.	5
C	208.	5
A* 68 to 193 °C	1.39669	5
B*	1403.7	5
K		
c		
t_k to °C		
t_x		
A' 25 to 68 °C	7.25291	5
B'	1695.6	5
C'	226.	5
A'* 25 to	1.73705	5
B'* 68 °C	1595.4	5
Ac 227 to t_c °C	7.7423	5
Bc	2313.	5
Cc	314.	5
Cryos. consts. A°		
B°		
t_e °C	182.73	5

		Ref.
dt/dP °C/mm 25°C	5.1760	5
BP	0.05288	5
t_e	0.0374	5
30 mm	0.7358	5
ΔHm cal/g		
ΔHv cal/g 25°C	77.06	5
30 mm	73.54	5
BP	62.56	5
t_e	60.51	5
t_e (d, e)	60.42	5
ΔHv/T_e	18.88	5
d 68 to 183 °C	81.27	5
e	0.1141	5
d' 25 to 68 °C	79.12	5
e'	0.0824	5
d_c g/ml	0.236	2
v_c ml/g	4.233	5
t_c °C	336.	5
P_c mm	15139.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9337	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	26.22	5
30	25.13	5
40	24.07	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

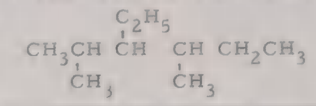
PURIFICATION: API

LITERATURE REFERENCES:

No. 128

NAME	3-Ethyl-2, 4-dimethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\underset{\mid}{C}H\overset{C_2H_5}{\overset{\mid}{C}H}\ CH\ CH_2CH_3$$
$$\quad CH_3 \qquad\quad CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	164.	2
100	97.1	4
30	67.7	4
10	45.3	5
1	7.9	5
Pressure mm 25°C	3.1136	5
t_e	1184.	5
Density g/ml 20°C	0.759	2
d_4^t 25	0.755	2
30	0.751	4
a	0.775	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.424	2
25	1.422	2
30	1.419	4
"C"	0.7424	4
MR (Obs.)	47.8	2
MR (Calc.)	48.38	5
(nD-d/2)	1.044	2
Dielectric	2.028	5
A 68 to	6.8988	5
B 227 °C	1494.	5
C	208.	5
A* 68 to	1.39669	5
B* 193 °C	1403.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.25291	5
B' 68 °C	1695.6	5
C'	226.	5
A'* 25 to	1.73706	5
B'* 68 °C	1595.4	5
Ac 227 to	7.7423	5
Bc t_c °C	2313.	5
Cc	314.	5
Cryos. A° consts. B°		
t_e °C	182.73	5

		Ref.
dt/dP °C/mm		
25°C	5.1760	5
BP	0.05288	5
t_e	0.0374	5
30 mm	0.7358	5
ΔHm cal/g		
ΔHv cal/g 25°C	77.06	5
30 mm	73.54	5
BP	62.56	5
t_e	60.51	5
t_e (d, e)	60.42	5
ΔHv/T_e	18.88	5
d 68 to	81.27	5
e 183 °C	0.1141	5
d' 25 to	79.12	5
e' 68 °C	0.0824	5
d_c g/ml	0.236	5
v_c ml/g	4.233	5
t_c °C	336.	5
P_c mm	15139.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9337	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	26.22	5
30	25.13	5
40	24.07	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

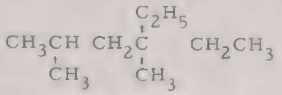
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 129

NAME	4-Ethyl-2,4-dimethylhexane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	


$$CH_3\underset{CH_3}{CH}\,CH_2\overset{C_2H_5}{\underset{CH_3}{C}}\,CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	158.	2
100	91.9	4
30	62.9	4
10	40.7	5
1	3.8	5
Pressure mm 25°C	4.0755	5
t_e	1168.	5
Density g/ml 20°C	0.747	2
d_4^t 25	0.743	2
30	0.739	4
a	0.763	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.419	2
25	1.417	2
30	1.414	4
"C"	0.7459	4
MR (Obs.)	48.1	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.013	5
A 63 to	6.8907	5
B 212 °C	1472.	5
C	209.	5
A* 63 to	1.39351	5
B* 186 °C	1382.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.24922	5
B' 63 °C	1672.9	5
C'	227.	5
A'* 25 to	1.73555	5
B'* 63 °C	1572.8	5
Ac 212 to	7.6778	5
Bc t_c °C	2211.	5
Cc	304.	5
Cryos. consts. A°		
B°		
t_e °C	175.91	5

		Ref.
dt/dP °C/mm		
25°C	4.0445	5
BP	0.05230	5
t_e	0.0374	5
30 mm	0.7269	5
ΔHm cal/g		
ΔHv cal/g 25°C	75.35	5
30 mm	72.33	5
BP	61.56	5
t_e	59.61	5
t_e (d, e)	59.53	5
ΔHv/T_e	18.88	5
d 63 to	79.44	5
e 176 °C	0.1132	5
d' 25 to	77.34	5
e' 63 °C	0.0797	5
d_c g/ml	0.233	5
v_c ml/g	4.292	5
t_c °C	326.	5
P_c mm	14685.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9347	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	24.60	5
30	23.56	5
40	22.55	5
Parachor [P] 20°C		
30		
40		
Sugd	424.2	5
Exp. L.l.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

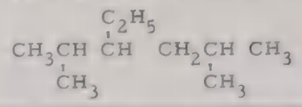
PURIFICATION: API

LITERATURE REFERENCES:

No. 130

NAME	3-Ethyl-2, 5-dimethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\ \overset{C_2H_5}{CH}\ \ CH_2\underset{CH_3}{CH}\ CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	157.	2
100	91.0	4
30	62.0	4
10	39.9	5
1	3.1	5
Pressure mm 25°C	4.2614	5
t_e	1165.	5
Density g/ml 20°C	0.741	2
d_4^t 25	0.737	2
30	0.733	4
a	0.757	4
b	-0.038	4
Ref. Index n_D 20°C	1.416	2
25	1.414	2
30	1.411	4
"C"	0.7469	4
MR (Obs.)	48.2	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.005	5
A 62 to	6.8894	5
B 210 °C	1468.	5
C	209.	5
A* 62 to	1.39312	5
B* 185 °C	1378.6	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.24860	5
B' 62 °C	1669.1	5
C'	227.	5
A'* 25 to	1.73529	5
B'* 62 °C	1569.0	5
Ac 210 to	7.6637	5
Bc t_c °C	2190.	5
Cc	302.	5
Cryos. A° consts. B°		
t_e °C	174.77	5

		Ref.
dt/dP °C/mm 25°C	3.8827	5
BP	0.05220	5
t_e	0.0374	5
30 mm	0.7254	5
ΔHm cal/g		
ΔHv cal/g 25°C	75.06	5
30 mm	72.13	5
BP	61.39	5
t_e	59.5	5
t_e (d, e)	59.38	5
$\Delta Hv/T_e$	18.88	5
d 62 to	79.14	5
e 175 °C	0.1131	5
d' 25 to	77.04	5
e' 62 °C	0.0792	5
d_c g/ml	0.231	5
v_c ml/g	4.328	5
t_c °C	323.	5
P_c mm	14490.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9348	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	23.82	5
30	22.81	5
40	21.82	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

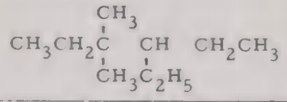
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 131

NAME	4-Ethyl-3, 3-dimethylhexane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\ \underset{C_2H_5}{CH}\ CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	165.	2
100	98.0	4
30	68.5	4
10	46.1	5
1	8.6	5
Pressure		
mm 25°C	2.9762	5
t_e	1187.	5
Density		
g/ml 20°C	0.764	2
d^t_4 25	0.760	2
30	0.756	4
a	0.780	4
b	-0.038	4
Ref. Index		
n_D 20°C	1.427	2
25	1.425	2
30	1.422	4
"C"	0.7424	4
MR (Obs.)	47.8	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.036	5
A 69 to	6.9001	5
B 228 °C	1498.	5
C	208.	5
A* 69 to	1.39706	5
B* 194 °C	1407.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.25351	5
B' 69 °C	1699.4	5
C'	226.	5
A'* 25 to	1.73730	5
B'* 69 °C	1599.1	5
Ac 228 to	7.7571	5
Bc t_c °C	2336.	5
Cc	316.	5
Cryos. A° consts. B°		
t_e °C	183.87	5

		Ref.
dt/dP °C/mm		
25°C	5.3948	5
BP	0.05298	5
t_e	0.0374	5
30 mm	0.7373	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.35	5
30 mm	73.75	5
BP	62.74	5
t_e	60.67	5
t_e (d, e)	60.58	5
ΔHv/T_e	18.89	5
d 69 to	81.57	5
e 184 °C	0.1142	5
d' 25 to	79.42	5
e' 69 °C	0.0828	5
d_c g/ml	0.238	5
v_c ml/g	4.200	5
t_c °C	338.	5
P_c mm	15307.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9337	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension		
dynes/cm. 20°C	26.92	5
γ 30	25.81	5
40	24.73	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

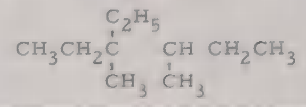
PURIFICATION: API

LITERATURE REFERENCES:

No. 132

NAME	3-Ethyl-3, 4-dimethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3CH_2\overset{C_2H_5}{\underset{CH_3}{C}}\ \underset{CH_3}{CH}\ CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	170.	2
100	102.3	4
30	72.5	4
10	49.8	5
1	12.0	5
Pressure		
mm 25°C	2.3895	5
t_e	1200.2	5
Density		
g/ml 20°C	0.772	2
d_4^t 25	0.768	2
30	0.764	4
a	0.788	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.431	2
25	1.429	2
30	1.426	4
"C"	0.7412	4
MR (Obs.)	47.7	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.048	5
A 73 to	6.9015	5
B 235 °C	1515.	5
C	207.	5
A* 73 to	1.39547	5
B* 200 °C	1423.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.25114	5
B' 73 °C	1716.1	5
C'	225.	5
A'* 25 to	1.73320	5
B'* 73 °C	1615.9	5
Ac 235 to	7.8101	5
Bc t_c °C	2428.	5
Cc	325.	5
Cryos. A° consts. B°		
t_e °C	189.56	5

		Ref.
dt/dP °C/mm		
25°C	6.6033	5
BP	0.05354	5
t_e	0.0375	5
30 mm	0.7452	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.71	5
30 mm	74.67	5
BP	63.45	5
t_e	61.30	5
t_e (d, e)	61.19	5
ΔHv/T_e	18.85	5
d 73 to	83.03	5
e 190 °C	0.1152	5
d' 25 to	80.84	5
e' 73 °C	0.0850	5
d_c g/ml	0.239	5
v_c ml/g	4.183	5
t_c °C	346.	5
P_c mm	15572.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9322	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.07	5
30	26.92	5
40	25.81	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

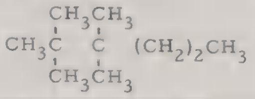
PURIFICATION: API

LITERATURE REFERENCES:

No. 133

NAME	2, 2, 3, 3-Tetramethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA


$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\overset{CH_3}{\underset{CH_3}{C}}(CH_2)_2CH_3$$

		Ref.
F. P. °C	-54.00	2
F. P. 100%		
B. P. °C		
760 mm	160.31	2
100	93.6	4
30	64.4	4
10	42.1	5
1	4.9	5
Pressure		
mm 25°C	3.7784	5
t_e	1175.	5
Density		
g/ml 20°C	0.76446	2
d^t_4 25	0.76089	2
30	0.75732	4
a	0.77873	4
b	-0.0_3713	4
Ref. Index		
n_D 20°C	1.42818	2
25	1.42600	2
30	1.42390	4
"C"	0.7439	4
MR (Obs.)	47.900	5
MR (Calc.)	48.38	5
(nD-d/2)	1.04595	2
Dielectric	2.040	5
A 64 to	6.8728	5
B 225 °C	1472.	5
C	209.	5
A* 64 to	1.37326	5
B* 189 °C	1382.5	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.22868	5
B' 64 °C	1673.1	5
C'	227.	5
A'* 25 to	1.71446	5
B'* 64 °C	1573.0	5
Ac 225 to	7.7086	5
Bc t_c °C	2282.	5
Cc	314.	5
Cryos. A° consts. B°		
t_e °C	178.66	5

		Ref.
dt/dP		
°C/mm		
25°C	4.3468	5
BP	0.05280	5
t_e	0.0376	5
30 mm	0.7322	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.62	5
30 mm	72.45	5
BP	61.65	5
t_e	59.67	5
t_e (d, e)	59.58	5
$\Delta Hv/T_e$	18.79	5
d 64 to	79.70	5
e 179 °C	0.1126	5
d' 25 to	77.63	5
e' 64 °C	0.0804	5
d_c g/ml	0.241	5
v_c ml/g	4.150	5
t_c °C	334.	5
P_c mm	15392.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9345	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	26.99	5
γ 30	25.99	5
40	25.02	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

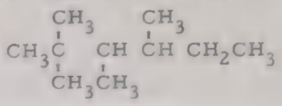
PURIFICATION: API

LITERATURE REFERENCES:

No. 134

NAME	2, 2, 3, 4-Tetramethylhexane				
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$		Molecular Weight 142.276	

STRUCTURAL FORMULA



$$\begin{array}{l} \quad\; CH_3 \qquad CH_3 \\ CH_3\overset{|}{\underset{|}{C}}\;\; \underset{|}{CH}\;\; \overset{|}{CH}\; CH_2CH_3 \\ \quad\; CH_3CH_3 \end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	154.9	2
100	88.9	4
30	59.9	4
10	37.8	5
1	1.1	5
Pressure mm 25°C	4.8247	5
t_e	1157.	5
Density g/ml 20°C	0.7548	2
d_4^t 25	0.7508	2
30	0.7468	4
a	0.771	4
b	-0.038	4
Ref. Index n_D 20°C	1.4226	2
25	1.4202	2
30	1.4178	4
"C"	0.7442	4
MR (Obs.)	47.96	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0452	2
Dielectric	2.024	5
A 60 to	6.8621	5
B 210 °C	1451.	5
C	210.	5
A* 60 to	1.37036	5
B* 182 °C	1362.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.22177	5
B' 60 °C	1651.4	5
C'	228.	5
A'* 25 to	1.70956	5
B'* 60 °C	1551.4	5
Ac 210 to	7.6365	5
Bc t_c °C	2174.	5
Cc	304.	5
Cryos. A° consts. B°		
t_e °C	172.42	5

		Ref.
dt/dP °C/mm		
25°C	3.4772	5
BP	0.05231	5
t_e	0.0377	5
30 mm	0.7244	5
ΔHm cal/g		
ΔHv cal/g		
25°C	74.03	5
30 mm	71.31	5
BP	60.57	5
t_e	58.67	5
t_e (d, e)	58.59	5
ΔHv/T_e	18.73	5
d 60 to	78.08	5
e 172 °C	0.1130	5
d' 25 to	75.98	5
e' 60 °C	0.0780	5
d_c g/ml	0.233	5
v_c ml/g	4.293	5
t_c °C	323.	5
P_c mm	14608.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9333	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	25.65	5
γ 30	24.57	5
40	23.53	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

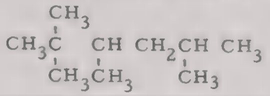
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 135

NAME	2, 2, 3, 5-Tetramethylhexane	STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\underset{CH_3}{CH}\,CH_2\underset{CH_3}{CH}\,CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	148.4	2
100	83.11	4
30	54.49	4
10	32.73	5
1	-3.54	5
Pressure mm 25°C	6.4707	5
t_e	1138.6	5
Density g/ml 20°C	0.7378	2
d_4^t 25	0.7336	2
30	0.7294	4
a	0.755	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4142	2
25	1.4117	2
30	1.4092	4
"C"	0.7471	4
MR (Obs.)	48.21	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0453	2
Dielectric	2.000	5
A 55 to	6.8462	5
B 199 °C	1424.4	5
C	211.	5
A* 55 to	1.36082	5
B* 175 °C	1337.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.21049	5
B' 55 °C	1624.23	5
C'	229.	5
A'* 25 to	1.70077	5
B'* 55 °C	1524.4	5
Ac 199 to	7.56018	5
Bc t_c °C	2064.8	5
Cc	293.8	5
Cryos. A°		
consts. B°		
t_e °C	165.04	5

		Ref.
dt/dP °C/mm 25°C	2.6618	5
BP	0.05176	5
t_e	0.03783	5
30 mm	0.7153	5
ΔHm cal/g		
ΔHv cal/g 25°C	72.10	5
30 mm	69.89	5
BP	59.34	5
t_e	57.55	5
t_e (d, e)	57.48	5
$\Delta Hv/T_e$	18.69	5
d 55 to	76.01	5
e 165 °C	0.1123	5
d' 25 to	73.98	5
e' 55 °C	0.0750	5
d_c g/ml	0.225	5
v_c ml/g	4.444	5
t_c °C	310.	5
P_c mm	13805.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9338	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	23.41	5
30	22.36	5
40	21.34	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

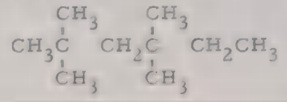
PURIFICATION: API

LITERATURE REFERENCES:

No. 136

NAME	2, 2, 4, 4-Tetramethylhexane			
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH_2\overset{CH_3}{\underset{CH_3}{C}}\ CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	153.3	2
100	87.44	4
30	58.55	4
10	36.58	5
1	-0.06	5
Pressure		
mm 25°C	5.1912	5
t_e	1152.6	5
Density		
g/ml 20°C	0.7470	2
d_4^t 25	0.7428	2
30	0.739	4
a	0.7638	4
b	-0.0_384	4
Ref. Index		
n_D 20°C	1.4208	2
25	1.4183	2
30	1.4159	4
"C"	0.7489	4
MR (Obs.)	48.28	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0473	2
Dielectric	2.019	5
A 59 to	6.85770	5
B 206 °C	1444.2	5
C	210.	5
A* 59 to	1.36755	5
B* 181 °C	1356.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.21851	5
B' 59 °C	1644.5	5
C'	228.	5
A'* 25 to	1.70692	5
B'* 59 °C	1544.5	5
Ac 206 to	7.60949	5
Bc t_c °C	2135.9	5
Cc	299.6	5
Cryos. A° consts. B°		
t_e °C	170.60	5

		Ref.
dt/dP °C/mm		
25°C	3.2530	5
BP	0.05218	5
t_e	0.0378	5
30 mm	0.7222	5
ΔHm cal/g		
ΔHv cal/g		
25°C	73.54	5
30 mm	70.95	5
BP	60.26	5
t_e	58.38	5
t_e (d, e)	58.30	5
ΔHv/T_e	18.72	5
d 59 to	77.56	5
e 171 °C	0.1129	5
d' 25 to	75.47	5
e' 59 °C	0.0772	5
d_c g/ml	0.228	5
v_c ml/g	4.385	5
t_c °C	318.	5
P_c mm	14184.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9334	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	24.60	5
30	23.51	5
40	22.45	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	99.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

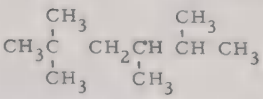
PURIFICATION: API

LITERATURE REFERENCES:

No. 137

NAME	2,2,4,5-Tetramethylhexane			
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	

STRUCTURAL FORMULA


$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH_2\underset{CH_3}{CH}\ \overset{CH_3}{CH}\ CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	147.88	2
100	82.64	4
30	54.05	4
10	32.31	5
1	-3.93	5
Pressure		
mm 25°C	6.6267	5
t_e	1137.1	5
Density		
g/ml 20°C	0.73546	2
d_4^t 25	0.73161	2
30	0.7278	4
a	0.7508	4
b	-0.0_377	4
Ref. Index		
n_D 20°C	1.41318	2
25	1.41095	2
30	1.40861	4
"C"	0.7477	4
MR (Obs.)	48.257	2
MR (Calc.)	48.38	5
(nD-d/2)	1.04545	2
Dielectric	1.997	5
A 54 to	6.8445	5
B 199 °C	1422.1	5
C	211.	5
A* 54 to	1.35962	5
B* 175 °C	1335.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.20914	5
B' 54 °C	1621.9	5
C'	229.	5
A'* 25 to	1.69963	5
B'* 54 °C	1522.1	5
Ac 199 to	7.56096	5
Bc t_c °C	2065.9	5
Cc	294.6	5
Cryos. A°		
consts. B°		
t_e °C	164.45	5

		Ref.
dt/dP °C/mm		
25°C	2.6050	5
BP	0.05173	5
t_e	0.03784	5
30 mm	0.7146	5
ΔHm cal/g		
ΔHv cal/g		
25°C	71.94	5
30 mm	69.77	5
BP	59.25	5
t_e	57.47	5
t_e (d, e)	57.39	5
$\Delta Hv/T_e$	18.68	5
d 54 to	75.83	5
e 165 °C	0.1121	5
d' 25 to	73.81	5
e' 54 °C	0.0748	5
d_c g/ml	0.228	5
v_c ml/g	4.391	5
t_c °C	310.	5
P_c mm	13973.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9339	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.12	5
γ 30	22.16	5
40	21.23	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	99.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

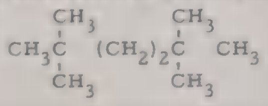
PURIFICATION: API

LITERATURE REFERENCES:

No. 138

NAME	2,2,5,5-Tetramethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ (CH_2)_2\overset{CH_3}{\underset{CH_3}{C}}\ CH_3$

		Ref.
F.P. °C	-12.60	2
F.P. 100%		
B.P. °C		
760 mm	137.46	2
100	73.43	4
30	45.41	4
10	24.12	5
1	-11.33	5
Pressure mm 25°C	10.5003	5
t_e	1113.0	5
Density g/ml 20°C	0.71875	2
d_4^t 25	0.71480	2
30	0.7108	4
a	0.7345	4
b	-0.0_379	4
Ref. Index n_D 20°C	1.40550	2
25	1.40316	2
30	1.40078	4
"C"	0.7517	4
MR (Obs.)	48.570	2
MR (Calc.)	48.38	5
(nD-d/2)	1.04612	2
Dielectric	1.975	5
A 45 to	6.81977	5
B 180 °C	1380.0	5
C	213.	5
A* 45 to	1.33826	5
B* 163 °C	1293.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.19208	5
B' 45 °C	1579.0	5
C'	231.	5
A'* 25 to	1.68745	5
B'* 45 °C	1479.7	5
Ac 180 to	7.46624	5
Bc t_c °C	1931.3	5
Cc	284.4	5
Cryos. A° consts. B°		
t_e °C	152.84	5

		Ref.
dt/dP °C/mm		
25°C	1.7150	5
BP	0.05083	5
t_e	0.03782	5
30 mm	0.6999	5
ΔHm cal/g		
ΔHv cal/g 25°C	68.95	5
30 mm	67.53	5
BP	57.58	5
t_e	55.96	5
t_e (d, e)	55.92	5
ΔHv/T_e	18.68	5
d 45 to	72.44	5
e 153 °C	0.1081	5
d' 25 to	70.71	5
e' 45 °C	0.0701	5
d_c g/ml	0.222	5
v_c ml/g	4.504	5
t_c °C	293.	5
P_c mm	13225.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9389	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension dynes/cm. γ 20°C	21.08	5
30	20.17	5
40	19.27	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	102.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.80 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

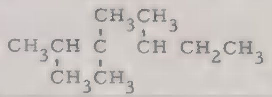
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 139

NAME	2, 3, 3, 4-Tetramethylhexane				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula	$C_{10}H_{22}$	Molecular Weight 142.276	



$CH_3\underset{CH_3}{CH}\overset{CH_3}{\underset{CH_3}{C}}\overset{CH_3}{CH}CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	164.59	2
100	97.44	4
30	67.92	4
10	45.45	5
1	7.97	5
Pressure		
mm 25°C	3.0990	5
t_e	1186.1	5
Density		
g/ml 20°C	0.7694	2
d_4^t 25	0.7648	2
30	0.7602	4
a	0.7878	4
b	-0.0_392	4
Ref. Index		
n_D 20°C	1.4297	2
25	1.4269	2
30	1.4242	4
"C"	0.7416	4
MR (Obs.)	47.74	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0450	2
Dielectric	1.901	5
A 68 to	6.88337	5
B 226 °C	1490.2	5
C	208.	5
A* 68 to	1.38067	5
B* 193 °C	1399.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.2364	5
B' 68 °C	1691.2	5
C'	226.	5
A'* 25 to	1.72056	5
B'* 68 °C	1591.0	5
Ac 226 to	7.7251	5
Bc t_c °C	2307.0	5
Cc	313.3	5
Cryos. A° consts. B°		
t_e °C	183.49	5

		Ref.
dt/dP		
°C/mm		
25°C	5.2091	5
BP	0.05316	5
t_e	0.03760	5
30 mm	0.7381	5
ΔHm cal/g		
ΔHv cal/g		
25°C	76.93	5
30 mm	73.40	5
BP	62.41	5
t_e	60.34	5
t_e (d, e)	60.25	5
$\Delta Hv/T_e$	18.80	5
d 68 to	81.12	5
e 183 °C	0.1137	5
d' 25 to	78.99	5
e' °C	0.0824	5
d_c g/ml	0.231	5
v_c ml/g	4.334	5
t_c °C	336.	5
P_c mm	14785.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9336	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	27.69	5
γ 30	26.39	5
40	25.13	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in [+]		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

[+] grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

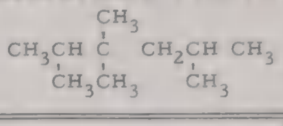
PURIFICATION: API

LITERATURE REFERENCES:

No. 140

NAME	2, 3, 3, 5-Tetramethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\underset{\displaystyle CH_3}{CH}\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}}CH_2\underset{\displaystyle CH_3}{CH}CH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	153.	2
100	87.19	4
30	58.31	4
10	36.35	5
1	-0.26	5
Pressure mm 25°C	5.2585	5
t_e	1151.7	5
Density g/ml 20°C	0.746	2
d_4^t 25	0.742	2
30	0.738	4
a	0.762	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.4196	2
25	1.4172	2
30	1.4148	4
"C"	0.7479	4
MR (Obs.)	48.223	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0466	2
Dielectric	2.015	5
A 58 to	6.85754	5
B 206 °C	1443.3	5
C	210.	5
A* 58 to	1.36768	5
B* 180 °C	1355.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.21858	5
B' 58 °C	1643.5	5
C'	228.	5
A'* 25 to	1.70709	5
B'* 58 °C	1543.5	5
Ac 206 to	7.61131	5
Bc t_c °C	2137.7	5
Cc	300.1	5
Cryos. A° consts. B°		
t_e °C	170.26	5

		Ref.
dt/dP °C/mm		
25°C	3.2148	5
BP	0.05215	5
t_e	0.03777	5
30 mm	0.7217	5
ΔHm cal/g		
ΔHv cal/g		
25°C	73.46	5
30 mm	70.89	5
BP	60.21	5
t_e	58.34	5
t_e (d, e)	58.26	5
ΔHv/T_e	18.72	5
d 58 to	77.47	5
e 170 °C	0.1128	5
d' 25 to	75.39	5
e' 58 °C	0.0771	5
d_c g/ml	0.230	5
v_c ml/g	4.347	5
t_c °C	318.	5
P_c mm	14305.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9334	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	24.47	5
γ 30	23.43	5
40	22.43	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.81\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

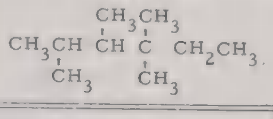
PURIFICATION: API

LITERATURE REFERENCES:

No. 141

NAME	2, 3, 4, 4-Tetramethylhexane
Mole % Pur.	
Ref.	
Molecular Formula	$C_{10}H_{22}$
Molecular Weight	142.276

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,\overset{CH_3}{CH}\,\overset{CH_3}{\underset{CH_3}{C}}\,CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	162.2	2
100	95.38	4
30	66.01	4
10	43.66	5
1	6.38	5
Pressure mm 25°C	3.4403	5
t_e	1179.4	5
Density g/ml 20°C	0.7639	2
d_4^t 25	0.7596	2
30	0.7553	4
a	0.7811	4
b	-0.0_386	4
Ref. Index n_D 20°C	1.4270	2
25	1.4244	2
30	1.4218	4
"C"	0.7425	4
MR (Obs.)	47.82	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0451	2
Dielectric	2.036	5
A 66 to	6.88230	5
B 224 °C	1482.1	5
C	208.	5
A* 66 to	1.38187	5
B* 191 °C	1392.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.23713	5
B' 66 °C	1683.1	5
C'	226.	5
A'* 25 to	1.72212	5
B'* 66 °C	1582.9	5
Ac 224 to	7.70922	5
Bc t_c °C	2278.0	5
Cc	311.2	5
Cryos. A° consts. B°		
t_e °C	180.75	5

		Ref.
dt/dP °C/mm 25°C	4.7322	5
BP	0.05290	5
t_e	0.03758	5
30 mm	0.7344	5
ΔHm cal/g		
ΔHv cal/g 25°C	79.29	5
30 mm	72.95	5
BP	62.03	5
t_e	60.01	5
t_e (d, e)	59.93	5
ΔHv/T_e	18.81	5
d 66 to	80.44	5
e 181 °C	0.1135	5
d' 25 to	78.31	5
e' 66 °C	0.0814	5
d_c g/ml	0.233	5
v_c ml/g	4.290	5
t_c °C	333.	5
P_c mm	14863.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9338	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A_v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	26.91	5
γ 30	25.71	5
40	24.56	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. 1. %/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

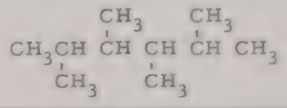
PURIFICATION: API

LITERATURE REFERENCES:

No. 142

NAME	2, 3, 4, 5-Tetramethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3CH(CH_3)CH(CH_3)CH(CH_3)CH(CH_3)CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	161.	2
100	94.20	4
30	64.87	4
10	42.55	5
1	5.33	5
Pressure mm 25°C	3.6754	5
t_e	1176.1	5
Density g/ml 20°C	0.757	2
d_4^t 25	0.753	2
30	0.749	4
a	0.077	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.424	2
25	1.422	2
30	1.419	4
"C"	0.7444	4
MR (Obs.)	47.959	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.028	5
A 65 to	6.87132	5
B 222 °C	1474.1	5
C	208.	5
A* 65 to	1.3720	5
B* 190 °C	1384.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.22662	5
B' 65 °C	1674.7	5
C'	226.	5
A'* 25 to	1.71217	5
B'* 65 °C	1574.6	5
Ac 222 to	7.69175	5
Bc t_c °C	2261.0	5
Cc	310.6	5
Cryos. A° consts. B°		
t_e °C	179.43	5

		Ref
dt/dP °C/mm		
25°C	4.4596	5
BP	0.05290	5
t_e	0.03768	5
30 mm	0.7334	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.77	5
30 mm	72.55	5
BP	61.69	5
t_e	59.69	5
t_e (d, e)	59.60	5
$\Delta Hv/T_e$	18.76	5
d 65 to	79.89	5
e 180 °C	0.1131	5
d' 25 to	77.79	5
e' 65 °C	0.0807	5
d_c g/ml	0.233	5
v_c ml/g	4.294	5
t_c °C	331.	5
P_c mm	14801.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9339	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	25.95	5
30	24.87	5
40	23.81	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

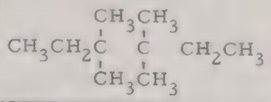
PURIFICATION: API

LITERATURE REFERENCES:

No. 143

NAME	3, 3, 4, 4-Tetramethylhexane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\overset{CH_3}{\underset{CH_3}{C}}CH_2CH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	170.0	2
100	102.23	4
30	72.43	4
10	49.73	5
1	11.85	5
Pressure mm 25°C	2.4070	5
t_e	1200.2	5
Density g/ml 20°C	0.7824	2
d^t_4 25	0.7783	2
30	0.7742	4
a	0.7988	4
b	-0.0_382	4
Ref. Index n_D 20°C	1.4368	2
25	1.4344	2
30	1.4319	4
"C"	0.7406	4
MR (Obs.)	47.622	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0456	2
Dielectric	2.064	5
A 72 to	6.89630	5
B 236 °C	1512.6	5
C	207.	5
A* 72 to	1.39029	5
B* 200 °C	1421.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.24577	5
B' 72 °C	1714.0	5
C'	225.	5
A'* 25 to	1.72790	5
B'* 72 °C	1613.7	5
Ac 236 to	7.81479	5
Bc t_c °C	2440.5	5
Cc	326.9	5
Cryos. A°		
consts. B°		
t_e °C	189.58	5

		Ref.
dt/dP °C/mm		
25°C	6.5635	5
BP	0.05361	5
t_e	0.03757	5
30 mm	0.7456	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.61	5
30 mm	74.59	5
BP	63.37	5
t_e	61.23	5
t_e (d, e)	61.12	5
ΔHv/T_e	18.82	5
d 72 to	82.91	5
e 190 °C	0.1150	5
d' 25 to	80.74	5
e' 72 °C	0.0849	5
d_c g/ml	0.241	5
v_c ml/g	4.150	5
t_c °C	348.	5
P_c mm	15745.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9322	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	29.61	5
γ 30	28.39	5
40	27.20	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L. 1. %/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.82 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

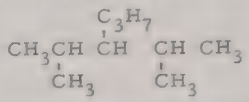
PURIFICATION: API

LITERATURE REFERENCES:

No. 144

NAME	3-Isopropyl-2, 4-dimethylpentane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\;\overset{C_3H_7}{CH}\;\underset{CH_3}{CH}\;CH_3$$

		Ref.
F.P. °C	-81.70	2
F.P. 100%		
B.P. °C		
760 mm	157.04	2
100	91.08	4
30	62.08	4
10	40.00	5
1	3.151	5
Pressure mm 25°C	4.2478	5
t_e	1165.2	5
Density g/ml 20°C	0.75830	2
d_4^t 25	0.75457	2
30	0.7508	4
a	0.7732	4
b	-0.0_374	4
Ref. Index n_D 20°C	1.42463	2
25	1.42248	2
30	1.42017	4
"C"	0.7441	4
MR (Obs.)	47.939	2
MR (Calc.)	48.38	5
(nD-d/2)	1.04548	2
Dielectric	2.029	5
A 62 to	6.89055	5
B 213 °C	1468.4	5
C	209.	5
A* 62 to	1.3942	5
B* 185 °C	1379.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.2498	5
B' 62 °C	1669.7	5
C'	227.	5
A'* 25 to	1.7364	5
B'* 62 °C	1569.6	5
Ac 213 to	7.68916	5
Bc t_c °C	2224.8	5
Cc	307.2	5
Cryos. consts. A°		
B°		
t_e °C	174.81	5

		Ref.
dt/dP °C/mm		
25°C	3.8935	5
BP	0.05219	5
t_e	0.03742	5
30 mm	0.7254	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.09	5
30 mm	72.15	5
BP	61.42	5
t_e	59.50	5
t_e (d, e)	59.42	5
$\Delta Hv/T_e$	18.90	5
d 62 to	79.17	5
e 175 °C	0.1130	5
d' 25 to	77.08	5
e' 62 °C	0.0793	5
d_c g/ml	0.241	5
v_c ml/g	4.145	5
t_c °C	327.	5
P_c mm	15233.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9348	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	26.13	5
30	25.11	5
40	24.12	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

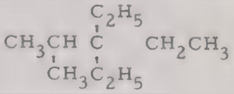
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 145

NAME	3,3-Diethyl-2-methylpentane				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276		



$$\begin{array}{ccc} & C_2H_5 & \\ CH_3CH & C & CH_2CH_3 \\ CH_3 & C_2H_5 & \end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	174.	2
100	105.87	4
30	75.87	4
10	53.01	5
1	14.86	5
Pressure		
mm 25°C	1.9757	5
t_e	1211.6	5
Density		
g/ml 20°C	0.780	2
d_4^t 25	0.775	2
30	0.770	4
a	0.800	4
b	-0.001	4
Ref. Index		
n_D 20°C	1.435	2
25	1.432	2
30	1.429	4
"C"	0.7400	4
MR (Obs.)	47.597	2
MR (Calc.)	48.38	5
(nD-d/2)	1.045	2
Dielectric	2.059	5
A 76 to	6.9118	5
B 236 °C	1531.5	5
C	206.	5
A* 76 to	1.40206	5
B* 204 °C	1439.9	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.2589	5
B' 76 °C	1733.4	5
C'	224.	5
A'* 25 to	1.7394	5
B'* 76 °C	1633.1	5
Ac 236 to	7.8257	5
Bc t_c °C	2451.7	5
Cc	323.8	5
Cryos. A°		
consts. B°		
t_e °C	194.10	5

		Ref.
dt/dP		
°C/mm		
25°C	7.8588	5
BP	0.05386	5
t_e	0.03746	5
30 mm	0.7507	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.99	5
30 mm	75.57	5
BP	64.20	5
t_e	61.97	5
t_e (d, e)	61.87	5
ΔHv/T_e	18.87	5
d 76 to	84.36	5
e 194 °C	0.1159	5
d' 25 to	82.16	5
e' 76 °C	0.0869	5
d_c g/ml	0.229	5
v_c ml/g	4.361	5
t_c °C	348.	5
P_c mm	14985.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9319	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	29.25	5
γ 30	27.78	5
40	26.36	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

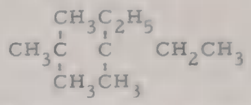
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 146

NAME	3-Ethyl-2, 2, 3-trimethylpentane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	



$$\begin{array}{cccc} & CH_3 & C_2H_5 & \\ CH_3 & C & C & CH_2CH_3 \\ & CH_3 & CH_3 & \end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	168.	2
100	100.45	4
30	70.75	4
10	48.14	5
1	10.41	5
Pressure		
mm 25°C	2.6452	5
t_e	1196.0	5
Density		
g/ml 20°C	0.781	2
d_4^t 25	0.777	2
30	0.773	4
a	0.7970	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.436	2
25	1.434	2
30	1.431	4
"C"	0.7407	4
MR (Obs.)	47.63	2
MR (Calc.)	48.38	5
(nD-d/2)	1.046	2
Dielectric	2.062	5
A 71 to	6.8911	5
B 234 °C	1504.2	5
C	207.	5
A* 71 to	1.38518	5
B* 197 °C	1413.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.2419	5
B' 71 °C	1705.4	5
C'	225.	5
A'* 25 to	1.72474	5
B'* 71 °C	1605.2	5
Ac 234 to	7.79459	5
Bc t_c °C	2410.3	5
Cc	324.7	5
Cryos. A° consts. B°		
t_e °C	187.37	5

		Ref.
dt/dP °C/mm		
25°C	6.0208	5
BP	0.05345	5
t_e	0.03756	5
30 mm	0.7429	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.98	5
30 mm	74.14	5
BP	63.06	5
t_e	60.95	5
t_e (d, e)	60.84	5
ΔHv/T_e	18.83	5
d 71 to	82.20	5
e 187 °C	0.1140	5
d' 25 to	80.08	5
e' 71 °C	0.0840	5
d_c g/ml	0.242	5
v_c ml/g	4.131	5
t_c °C	345.	5
P_c mm	15744.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9334	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	29.40	5
γ 30	28.21	5
40	27.06	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

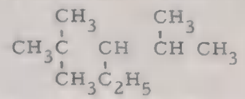
PURIFICATION: API

LITERATURE REFERENCES:

No. 147

NAME	3-Ethyl-2, 2, 4-trimethylpentane				
Mole % Pur.		Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{\overset{CH_3}{C}}\ \underset{C_2H_5}{CH}\ \overset{CH_3}{CH}\ CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	155.3	2
100	89.23	4
30	60.23	4
10	38.17	5
1	1.39	5
Pressure		
mm 25°C	4.7370	5
t_e	1160.4	5
Density		
g/ml 20°C	0.7571	2
d_4^t 25	0.7531	2
30	0.7491	4
a	0.7731	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.4223	2
25	1.4199	2
30	1.4175	4
"C"	0,7414	4
MR (Obs.)	47.78	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0438	2
Dielectric	2.023	5
A 60 to	6.8631	5
B 211 °C	1452.7	5
C	209.	5
A* 60 to	1.3684	5
B* 183 °C	1363.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.2226	5
B' 60 °C	1653.1	5
C'	227.	5
A'* 25 to	1.71021	5
B'* 60 °C	1553.1	5
Ac 211 to	7.64307	5
Bc t_c °C	2183.2	5
Cc	304.6	5
Cryos. A° consts. B°		
t_e °C	172.95	5

		Ref.
dt/dP °C/mm		
25°C	3.5358	5
BP	0.05235	5
t_e	0.03680	5
30 mm	0.7250	5
ΔHm cal/g		
ΔHv cal/g		
25°C	74.15	5
30 mm	71.40	5
BP	60.74	5
t_e	58.84	5
t_e (d, e)	58.76	5
ΔHv/T_e	18.76	5
d 60 to	78.15	5
e 173 °C	0.1121	5
d' 25 to	76.10	5
e' 60 °C	0.0782	5
d_c g/ml	0.234	5
v_c ml/g	4.272	5
t_c °C	324.	5
P_c mm	14706.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9485	5
t_e	0.9349	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B_v^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	25.96	5
γ 30	24.88	5
40	23.82	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.81 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

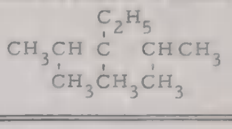
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 148

NAME	3-Ethyl-2, 3, 4-trimethylpentane					STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula $C_{10}H_{22}$		Molecular Weight 142.276	



$$\begin{array}{ccccc} & & C_2H_5 & & \\ & & | & & \\ CH_3 & CH & C & CH & CH_3 \\ & | & | & | & \\ & CH_3 & CH_3 & CH_3 & \end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	169.44	2
100	101.72	4
30	71.94	4
10	49.26	5
1	11.43	5
Pressure mm 25°C	2.4751	5
t_e	1198.6	5
Density g/ml 20°C	0.7773	2
d_4^t 25	0.7733	2
30	0.7693	4
a	0.7933	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.4333	2
25	1.4310	2
30	1.4285	4
"C"	0.7399	4
MR (Obs.)	47.60	2
MR (Calc.)	48.38	5
(nD-d/2)	1.0447	2
Dielectric	2.054	5
A 72 to	6.8938	5
B 235 °C	1509.9	5
C	207.	5
A* 72 to	1.38832	5
B* 199 °C	1419.1	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.24360	5
B' 72 °C	1711.2	5
C'	225.	5
A'* 25 to	1.72596	5
B'* 72 °C	1610.9	5
Ac 235 to	7.80480	5
Bc t_c °C	2426.8	5
Cc	325.7	5
Cryos. A°		
consts. B°		
t_e °C	188.95	5

		Ref.
dt/dP °C/mm		
25°C	6.3989	5
BP	0.05358	5
t_e	0.03759	5
30 mm	0.7450	5
ΔHm cal/g		
ΔHv cal/g 25°C	78.42	5
30 mm	74.45	5
BP	63.25	5
t_e	61.11	5
t_e (d, e)	61.00	5
$\Delta Hv/T_e$	18.81	5
d 72 to	82.71	5
e 189 °C	0.1149	5
d' 25 to	80.53	5
e' 72 °C	0.0846	5
d_c g/ml	0.240	5
v_c ml/g	4.168	5
t_c °C	347.	5
P_c mm	15653.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9470	5
t_e	0.9322	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.85	5
30	27.67	5
40	26.54	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

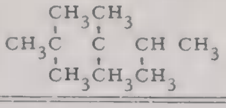
PURIFICATION: API

LITERATURE REFERENCES:

No. 149

NAME	2, 2, 3, 3, 4-Pentamethylpentane				
Mole % Pur.		Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276	

STRUCTURAL FORMULA



$$\begin{array}{ccccc} & \mathrm{CH_3} & \mathrm{CH_3} & & \\ \mathrm{CH_3} & \mathrm{C} & \mathrm{C} & \mathrm{CH} & \mathrm{CH_3} \\ & \mathrm{CH_3} & \mathrm{CH_3} & \mathrm{CH_3} & \end{array}$$

		Ref.
F. P. °C	-36.45	2
F. P. 100%		
B. P. °C		
760 mm	166.05	2
100	98.72	4
30	69.13	4
10	46.60	5
1	9.01	5
Pressure		
mm 25°C	2.8978	5
t_e	1190.4	5
Density		
g/ml 20°C	0.78009	2
d_4^t 25	0.77675	2
30	0.7734	4
a	0.7934	4
b	-0.0_367	4
Ref. Index		
n_D 20°C	1.43606	2
25	1.43412	2
30	1.43210	4
"C"	0.7417	4
MR (Obs.)	47.693	2
MR (Calc.)	48.38	5
(nD-d/2)	1.04602	2
Dielectric	2.062	5
A 69 to	6.8863	5
B 235 °C	1496.1	5
C	207.	5
A* 69 to	1.38223	5
B* 195 °C	1405.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.2383	5
B' 69 °C	1697.1	5
C'	225.	5
A'* 25 to	1.72197	5
B'* 69 °C	1596.9	5
Ac 235 to	7.79495	5
Bc t_c °C	2410.3	5
Cc	326.8	5
Cryos. A°		
consts. B°		
t_e °C	185.15	5

		Ref.
dt/dP		
°C/mm		
25°C	5.5392	5
BP	0.05328	5
t_e	0.03759	5
30 mm	0.7402	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.37	5
30 mm	73.71	5
BP	62.70	5
t_e	60.63	5
t_e (d, e)	60.52	5
$\Delta Hv/T_e$	18.82	5
d 69 to	81.56	5
e 185 °C	0.1136	5
d' 25 to	79.45	5
e' 69 °C	0.0831	5
d_c g/ml	0.249	5
v_c ml/g	4.012	5
t_c °C	346.	5
P_c mm	16236.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9480	5
t_e	0.9335	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	29.26	5
γ 30	28.27	5
40	27.30	5
Parachor [P]		
20°C		
30		
40		
Sugd.	424.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	97.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

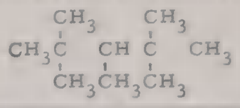
PURIFICATION: API

LITERATURE REFERENCES:

No. 150

NAME	2, 2, 3, 4, 4-Pentamethylpentane		
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{22}$	Molecular Weight 142.276

STRUCTURAL FORMULA



$$\begin{array}{ccccc} & CH_3 & & CH_3 & \\ CH_3 & C & CH & C & CH_3 \\ & CH_3 & CH_3 & CH_3 & \end{array}$$

		Ref.
F.P. °C	-38.75	2
F.P. 100%		
B.P. °C		
760 mm	159.29	2
100	92.74	4
30	63.52	4
10	41.28	5
1	4.20	5
Pressure mm 25°C	3.9551	5
t_e	1170.4	5
Density g/ml 20°C	0.76703	2
d_4^t 25	0.76361	2
30	0.7602	4
a	0.7807	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.43069	2
25	1.42868	2
30	1.42660	4
"C"	0.7455	4
MR (Obs.)	47.984	2
MR (Calc.)	48.38	5
(nD-d/2)	1.04717	2
Dielectric	2.047	5
A 64 to 224 °C	6.8712	5
B	1468.6	5
C	209.	5
A* 64 to 188 °C	1.37443	5
B*	1379.3	5
K		
c		
t_k to °C		
t_x		
A' 25 to 64 °C	7.22785	5
B'	1669.2	5
C'	227.	5
A'* 25 to 64 °C	1.71400	5
B'*	1569.1	5
Ac 224 to t_c °C	7.70538	5
Bc	2275.4	5
Cc	314.2	5
Cryos. consts. A°		
B°		
t_e °C	177.44	5

		Ref.
dt/dP °C/mm		
25°C	4.1689	5
BP	0.05270	5
t_e	0.03768	5
30 mm	0.7307	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.32	5
30 mm	72.24	5
BP	61.41	5
t_e	59.45	5
t_e (d, e)	59.36	5
$\Delta Hv/T_e$	18.77	5
d 64 to 178 °C	79.43	5
e	0.1131	5
d' 25 to 64 °C	77.32	5
e'	0.0800	5
d_c g/ml	0.244	5
v_c ml/g	4.102	5
t_c °C	333.	5
P_c mm	15544.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9475	5
t_e	0.9335	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	27.35	5
30	26.38	5
40	25.44	5
Parachor [P] 20°C		
30		
40		
Sugd.	424.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 151

NAME	n-Undecane		STRUCTURAL FORMULA $CH_3(CH_2)_9CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{11}H_{24}$	Molecular Weight 156.292

		Ref.
F.P. °C	-25.594	2
F.P. 100%		
B.P. °C		
760 mm	195.890	2
100	127.943	2
30	97.90	4
10	74.97	4
1	36.60	5
Pressure mm 25°C	0.4289	5
t_e	1244.8	5
Density g/ml 20°C	0.74017	2
d_4^t 25	0.73655	2
30	0.7329	4
a	0.75465	4
b	-0.0_3724	4
Ref. Index n_D 20°C	1.41716	2
25	1.41500	2
30	1.41284	4
"C"	0.7497	4
MR (Obs.)	53.12	2
MR (Calc.)	52.998	5
(nD-d/2)	1.04707	2
Dielectric	2.01	5
A 98 to 258 °C	6.97674	2
B	1572.477	2
C	188.022	2
A* 98 to 227 °C	1.53010	5
B*	1493.5	5
K		
c		
t_k to t_x °C		
A' 25 to 98 °C	7.3225	5
B'	1776.4	5
C'	206.	5
A'* 25 to	1.8511	5
B'* 98 °C	1685.0	5
Ac 258 to t_c °C	7.9352	5
Bc	2543.8	5
Cc	309.3	5
Cryos. A° consts. B°		
t_e °C	217.09	5

		Ref.
dt/dP °C/mm		
25°C	30.42	5
BP	0.05356	5
t_e	0.03641	5
30 mm	0.7526	5
ΔHm cal/g		
ΔHv cal/g 25°C	86.4	2
30 mm	77.55	5
BP	63.5	2
t_e	60.84	5
t_e (d, e)	60.46	5
$\Delta Hv/T_e$	19.38	5
d 98 to 217 °C	91.59	5
e	0.1434	5
d' 25 to 98 °C	89.44	5
e'	0.1214	5
d_c g/ml	0.237	2
v_c ml/g	4.223	2
t_c °C	367.	2
P_c mm	14592.	2
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9305	5
t_e	0.9126	5
t_c	0.242	2
ΔHc kcal/m	1663.55	2
ΔHf		
ΔFf		
Viscosity centistokes η 110 °C	0.5977	2
130	0.5160	2
150	0.4522	2
170	0.4006	2
B^v 100 to 180 °C	491.2	4
A^v	$\bar{2}.49440$	4
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m 300 to 600 °K	0.0255	4
n	0.0014	4
o	-0.0_647	4
m' 700 to 1000 °K	0.1104	4
n'	0.0012	4
o'	-0.0_640	4
Surface tension dynes/cm. γ 20°C	24.74	2
30	23.80	2
40	22.88	2
Parachor [P] 20°C	471.0	4
30	471.0	4
40	471.0	4
Sugd.	463.2	5
Exp. L.l.%/wt. u. Dispersion		
Flash Point °C Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.83\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 152

NAME	n-Dodecane		STRUCTURAL FORMULA $CH_3(CH_2)_{10}CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{12}H_{26}$	Molecular Weight 170.328

		Ref.
F.P. °C	-9.587	2
F.P. 100%		
B.P. °C		
760 mm	216.278	2
100	146.142	2
30	115.1	4
10	91.45	5
1	51.84	5
Pressure		
mm 25°C	0.1320	5
t_e	1297.3	5
Density		
g/ml 20°C	0.74869	2
d_4^t 25	0.74516	2
30	0.74163	4
a	0.76281	4
b	-0.0_3706	4
Ref. Index		
n_D 20°C	1.42160	2
25	1.41949	2
30	1.41735	4
"C"	0.7486	4
MR (Obs.)	57.76	5
MR (Calc.)	57.616	2
(nD-d/2)	1.04725	5
Dielectric	2.02	5
A 150 to	6.98059	2
B 280 °C	1625.928	2
C	180.311	2
A* 150 to	1.5604	5
B* 250 °C	1546.9	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.3157	5
B' 150 °C	1830.0	5
C'	198,3	5
A'* 25 to	1.8787	5
B'* 150 °C	1740.9	5
Ac 280 to	8.06653	5
Bc t_c °C	2780.0	5
Cc	322.0	5
Cryos. A°		
consts. B°		
t_e °C	240.09	5

		Ref.
dt/dP		
°C/mm		
25°C	89.64	5
BP	0.05528	2
t_e	0.03639	5
30 mm	0.7771	5
ΔHm cal/g	51.69	3'
ΔHv cal/g		
25°C	86.0	2
30 mm	75.46	5
BP	61.3	2
t_e	58.38	5
t_e (d, e)	57.97	5
$\Delta Hv/T_e$	19.37	5
d 150 to	91.58	5
e 230 °C	0.1400	5
d' 25 to	88.92	5
e' 150 °C	0.1170	5
d_c g/ml	0.237	2
v_c ml/g	4.215	2
t_c °C	386.	2
P_c mm	13604.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9283	5
t_e	0.9084	5
t_c	0.237	2
ΔHc kcal/m	1810.48	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 150 °C	0.5128	2
170	0.4516	2
190	0.4017	2
210	0.3597	2
B^v 140 to	529.0	4
A^v 220 °C	$\bar{2}.46116$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0234	4
n 600 °K	0.0013	4
o	-0.0_643	4
m' 700 to	0.1115	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension		
dynes/cm. 20°C	25.44	2
γ 30	24.51	2
40	23.60	2
Parachor [P]		
20°C	510.9	4
30	511.1	4
40	511.1	4
Sugd.	502.2	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C	165.	3
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.84\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 NFPA 325; 3' JACS 76, 333 (1954) Linke et al.

No. 153

NAME	n-Tridecane			STRUCTURAL FORMULA $CH_3(CH_2)_{11}CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{13}H_{28}$	Molecular Weight 184.354	

		Ref.
F.P. °C	-5.392	2
F.P. 100%		
B.P. °C		
760 mm	235.44	2
100	163.3	2
30	131.45	4
10	107.09	5
1	66.35	5
Pressure		
mm 25°C	0.03972	5
t_e	1339.0	5
Density		
g/ml 20°C	0.7564	2
d_4^t 25	0.7528	2
30	0.7492	2
a	0.7708	4
b	$-0.0_{3}72$	4
Ref. Index		
n_D 20°C	1.4256	2
25	1.4234	2
30	1.4213	4
"C"	0.7476	4
MR (Obs.)	62.40	5
MR (Calc.)	62.234	2
(nD-d/2)	1.0474	5
Dielectric	2.03	5
A 131 to 302 °C	6.9887	2
B	1677.43	2
C	172.90	2
A* 131 to 271 °C	1.6005	5
B*	1600.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to 131 °C	7.3147	5
B'	1881.7	5
C'	190.9	5
A'* 25 to	1.9095	5
B'* 131 °C	1795.0	5
Ac 302 to t_c °C	8.1985	5
Bc	3013.2	5
Cc	333.4	5
Cryos. A° consts. B°		
t_e °C	261.5	5

		Ref.
dt/dP °C/mm		
25°C	249.27	5
BP	0.0568	2
t_e	0.03648	5
30 mm	0.7994	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.9	2
30 mm	73.60	5
BP	59.1	2
t_e	55.97	5
t_e (d, e)	55.47	5
$\Delta Hv/T_e$	19.30	5
d 131 to 261 °C	91.92	5
e	0.1394	5
d' 25 to 131 °C	88.78	5
e'	0.1153	5
d_c g/ml	0.24	2
v_c ml/g	4.231	2
t_c °C	404.	2
P_c mm	12920.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.92225	5
t_e	0.9001	5
t_c	0.23	2
ΔHc kcal/m	1957.40	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 170 °C	0.5043	2
190	0.4468	2
210	0.3987	2
230	0.3577	2
B^v 160 to 240 °C	558.8	4
A^v	$\bar{2}.44372$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0241	4
n	0.0014	4
o	$-0.0_{6}48$	4
m' 700 to 1000 °K	0.1133	4
n'	0.0012	4
o'	$-0.0_{6}39$	4
Surface tension dynes/cm. 20°C	26.1	2
γ 30	25.2	2
40	24.3	2
Parachor [P] 20°C	550.9	4
30	551.3	4
40	551.6	4
Sugd.	541.2	5
Exp. L.1.%/wt. u. Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.85\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 154

NAME	n-Tetradecane		STRUCTURAL FORMULA $CH_3(CH_2)_{12}CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{14}H_{30}$	Molecular Weight 198.380

		Ref.
F.P. °C	5.863	2
F.P. 100%		
B.P. °C		
760 mm	253.57	2
100	179.6	2
30	146.91	4
10	121.92	5
1	80.13	5
Pressure		
mm 25°C	0.01172	5
t_e	1390.0	5
Density		
g/ml 20°C	0.7628	2
d_4^t 25	0.7593	2
30	0.7558	4
a	0.7768	4
b	-0.0_370	4
Ref. Index		
n_D 20°C	1.4289	2
25	1.4268	2
30	1.4247	4
"C"	0.7467	4
MR (Obs.)	67.03	5
MR (Calc.)	66.852	2
(nD-d/2)	1.0475	5
Dielectric	2.04	5
A 147 to	6.9957	2
B 325 °C	1725.46	2
C	165.75	2
A* 147 to	1.6252	5
B* 292 °C	1647.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.3143	5
B' 147 °C	1930.4	5
C'	183.8	5
A'* 25 to	1.9386	5
B'* 147 °C	1846.1	5
Ac 325 to	8.36982	5
Bc t_c °C	3312.8	5
Cc	352.5	5
Cryos. A°		
consts. B°		
t_e °C	282.11	5

		Ref.
dt/dP °C/mm		
25°C	711.4	5
BP	0.0582	2
t_e	0.03632	5
30 mm	0.8202	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.7	2
30 mm	71.85	5
BP	57.5	2
t_e	54.19	5
t_e (d, e)	53.66	5
$\Delta Hv/T_e$	19.36	5
d 147 to	91.62	5
e 282 °C	0.1346	5
d' 25 to	88.94	5
e' 147 °C	0.1298	5
d_c g/ml	0.24	2
v_c ml/g	4.184	2
t_c °C	422.	2
P_c mm	12160.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9232	5
t_e	0.8996	5
t_c	0.23	2
ΔHc kcal/m	2104.32	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 190 °C	0.4946	2
210	0.4402	2
230	0.3941	2
250	0.3552	2
B^v 180 to	588.9	4
A^v 260 °C	$\bar{2}.42490$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0242	4
n 600 °K	0.0014	4
o	-0.0_648	4
m' 700 to	0.1121	4
n' 1000 °K	0.0012	4
o'	-0.0_640	4
Surface tension dynes/cm. 20°C	26.6	2
γ 30	25.7	2
40	24.8	2
Parachor [P]		
20°C	590.6	4
30	590.9	4
40	591.2	4
Sugd.	580.2	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.86\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 155

NAME	n-Pentadecane			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{15}H_{32}$	Molecular Weight 212.406	$CH_3(CH_2)_{13}CH_3$

		Ref.
F.P. °C	9.926	2
F.P. 100%		
B.P. °C		
760 mm	270.63	2
100	195.0	2
30	161.57	4
10	136.01	5
1	93.26	5
Pressure		
mm 25°C	0.00233	5
t_e	1424.1	5
Density		
g/ml 20°C	0.7685	2
d_4^t 25	0.7650	2
30	0.7615	4
a	0.7825	4
b	-0.0_370	4
Ref. Index		
n_D 20°C	1.4319	2
25	1.4298	2
30	1.4277	4
"C"	0.7461	4
MR (Obs.)	71.67	5
MR (Calc.)	71.47	2
(nD-d/2)	1.0476	5
Dielectric	2.05	5
A 160 to	7.0017	2
B 338 °C	1768.82	2
C	158.60	2
A* 160 to	1.6613	5
B* 310 °C	1693.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.3123	5
B' 160 °C	1973.3	5
C'	176.6	5
A'* 25 to	1.9646	5
B'* 160 °C	1891.6	5
Ac 338 to	8.5317	5
Bc t_c °C	3600.5	5
Cc	369.1	5
Cryos. A° consts. B°		
t_e °C	301.06	5

		Ref.
dt/dP		
°C/mm		
25°C	35521.	5
BP	0.0595	2
t_e	0.03642	5
30 mm	0.8390	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.7	2
30 mm	70.26	5
BP	55.6	2
t_e	52.12	5
t_e (d, e)	51.51	5
ΔHv/T_e	19.28	5
d 160 to	91.99	5
e 290 °C	0.1344	5
d' 25 to	86.18	5
e' 160 °C	0.1130	5
d_c g/ml	0.24	2
v_c ml/g	4.190	2
t_c °C	437.	2
P_c mm	11400.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9170	5
t_e	0.8914	5
t_c	0.23	2
ΔHc kcal/m	2251.24	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 210 °C	0.4819	2
230	0.4308	2
250	0.3878	2
270	0.3510	2
B^v 200 to	608.0	4
A^v 280 °C	$\bar{2}.42601$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0239	4
n 600 °K	0.0014	4
o	-0.0_648	4
m' 700 to	0.1156	4
n' 1000 °K	0.0012	4
o'	-0.0_639	4
Surface tension		
dynes/cm. 20°C	27.1	2
γ 30	26.2	2
40	25.3	2
Parachor [P]		
20°C	630.6	4
30	631.1	4
40	631.4	4
Sugd.	619.2	5
Exp. L.1.%/wt. u. Dispersion		
Flash Point °C Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.86 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 156

NAME	n-Hexadecane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{16}H_{34}$	Molecular Weight 226.432
			$CH_3(CH_2)_{14}CH_3$

		Ref.
F.P. °C	18.165	2
F.P. 100%		
B.P. °C		
760 mm	286.793	2
100	209.519	2
30	175.2	4
10	149.04	4
1	105.20	5
Pressure °C		
mm 71.87	0.00105	5
t_e	1474.2	5
Density		
g/ml 20°C	0.77344	2
d^t_4 25	0.76996	2
30	0.76648	4
a	0.7874	4
b	-0.0_370	4
Ref. Index		
n_D 20°C	1.43453	2
25	1.43250	2
30	1.43036	4
"C"	0.7456	4
MR (Obs.)	76.32	5
MR (Calc.)	76.088	2
(nD-d/2)	1.04781	5
Dielectric	2.06	5
A 175 to	7.03044	2
B 358 °C	1831.317	2
C	154.528	2
A* 175 to	1.70090	5
B* 330 °C	1752.9	5
K		
c		
t_k to		
t_x °C		
A' 70 to	7.33309	5
B' 175 °C	2036.4	5
C'	172.5	5
A'* 70 to	1.97708	5
B'* 175 °C	1944.2	5
Ac 358 to	8.7725	5
Bc t_c °C	4015.9	5
Cc	397.6	5
Cryos. A° consts. B°		
t_e °C	319.7	5

		Ref.
dt/dP		
°C/mm		
71.87°C	127.43	5
BP	0.06077	2
t_e	0.03617	5
30 mm	0.8596	5
ΔHm cal/g		
ΔHv cal/g		
71.87°C	79.39	5
30 mm	68.43	5
BP	54.3	2
t_e	50.76	5
t_e (d, e)	50.13	5
ΔHv/T_e	19.38	5
d 175 to	90.64	5
e 310 °C	0.1267	5
d' 70 to	88.46	5
e' 175 °C	0.1143	5
d_c g/ml	0.24	2
v_c ml/g	4.195	2
t_c °C	452.	2
P_c mm	10640.	2
PV/RT		
71.87°C	1.0000	5
30 mm	1.0000	5
BP	0.9197	5
t_e	0.8937	5
t_c	0.22	2
ΔHc kcal/m	2398.17	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 225 °C	0.4816	2
245	0.4322	2
265	0.3910	2
285	0.3540	2
B^v 220 to	626.8	4
A^v 290 °C	$\bar{2}.42611$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0240	4
n	600 °K	0.0014	4
o		-0.0_648	4
m'	700 to	0.1230	4
n'	1000 °K	0.0012	4
o'		-0.0_640	4
Surface tension			
dynes/cm. γ	20°C	27.6	2
	30	26.7	2
	40	25.8	2
Parachor [P]			
	20°C	671.0	4
	30	671.5	4
	40	672.0	4
	Sugd.	658.2	5
Exp. L.l.%/wt.			
u.			
Dispersion			
Flash Point °C			
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.87\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 157

NAME	n-Heptadecane			STRUCTURAL FORMULA
Mole % Pur. 99.0#	Ref. 3	Molecular Formula $C_{17}H_{36}$	Molecular Weight 240.458	$CH_3(CH_2)_{15}CH_3$

		Ref.
F.P. °C	21.980	2
F.P. 100%		
B.P. °C		
760 mm	301.82	2
100	223.2	2
30	188.36	4
10	161.75	5
1	117.26	5
Pressure °C mm 83.5	0.0_3572	5
t_e	1510.3	5
Density g/ml 20°C	0.7780≠	2
d_4^t 25	0.7745	2
30	0.7710	4
a	0.7920	4
b	-0.0_370	4
Ref. Index n_D 20°C	1.4369≠	2
25	1.4348	2
70	1.4170	3
"C"	0.7450	4
MR (Obs.)	80.96	2
MR (Calc.)	80.706	5
(nD-d/2)	1.0479	2
Dielectric	2.06	5
A 188 to 374 °C	7.0115	2
B	1847.82	2
C	145.52	2
A* 188 to 347 °C	1.7043	5
B*	1771.33	5
K		
c		
t_k to		
t_x °C		
A' 85 to 188 °C	7.3095	5
B'	2052.2	5
C'	163.5	5
A'* 85 to 188 °C	1.96828	5
B'*	1959.6	5
Ac 374 to t_c °C	8.9220	5
Bc	4310.1	5
Cc	414.4	5
Cryos. consts. A°		
B°		
t_e °C	336.6	5

		Ref.
dt/dP °C/mm		
83.5°C	129.08	5
BP	0.0619	2
t_e	0.03618	5
30 mm	0.8733	5
ΔHm cal/g		
ΔHv cal/g		
83.5°C	81.28	2
30 mm	67.20	5
BP	52.8	2
t_e	49.09	5
t_e (d, e)	48.38	5
ΔHv/T_e	19.36	5
d 188 to 337 °C	91.10	5
e	0.1269	5
d' 85 to 188 °C	88.3	5
e'	0.1343	5
d_c g/ml	0.24	2
v_c ml/g	4.159	2
t_c °C	462.	2
P_c mm	9880.	2
PV/RT		
83.5°C	1.0000	5
30 mm	1.0000	5
BP	0.9176	5
t_e	0.8902	5
t_c	0.22	2
ΔHc kcal/m	2545.09	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 240 °C	0.4804	2
260	0.4330	2
280	0.3920	2
300	0.3550	2
B^v 230 to 310 °C	659.1	4
A^v	$\bar{2}$.40037	4
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0238	4
n	0.0014	4
o	-0.0_648	4
m' 700 to 1000 °K	0.1161	4
n'	0.0012	4
o'	-0.0_639	4
Surface tension dynes/cm. γ 20°C	28.0≠	2
30	27.1	2
40	26.2	2
Parachor [P] 20°C	711.0	4
30	711.6	4
40	712.1	4
Sugd.	697.2	5
Exp. L.1.%/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.88 T_c ≠ for undercooled liquid + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A.A. et al.

# purity applies to $n_D^{70°C}$

No. 158

NAME	n-Octadecane				STRUCTURAL FORMULA $CH_3(CH_2)_{16}CH_3$
Mole % Pur. 99.9#	Ref. 3	Molecular Formula $C_{18}H_{38}$		Molecular Weight 254.484	

		Ref.
F.P. °C	28.180	2
F.P. 100%		
B.P. °C		
760 mm	316.12	2
100	236.	2
30	200.66	4
10	173.57	5
1	128.28	5
Pressure mm 25°C	0.0_473	5
t_e	1549.3	5
Density g/ml 20°C	0.7819≠	2
d_4^t 25	0.7785≠	2
30	0.7751	4
a	0.7955	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4390≠	2
25	1.4369≠	2
70	1.4191	3
"C"	0.7446	4
MR (Obs.)	85.61	5
MR (Calc.)	85.324	2
(nD-d/2)	1.0480	5
Dielectric	2.07	5
A 201 to	7.0156	2
B 387 °C	1883.73	2
C	139.46	2
A* 201 to	1.7241	5
B* 363 °C	1806.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.3094	5
B' 201 °C	2088.9	5
C'	157.5	5
A'* 25 to	2.03584	5
B'* 201 °C	2014.1	5
Ac 387 to	9.1876	5
Bc t_c °C	4810.2	5
Cc	449.57	5
Cryos. A° consts. B°		
t_e °C	353.0	5

		Ref.
dt/dP °C/mm		
25°C	94805.4	5
BP	0.0630	2
t_e	0.03608	5
30 mm	0.8890	5
ΔHm cal/g	57.65	3
ΔHv cal/g		
25°C	85.3≠	2
30 mm	65.74	5
BP	51.5	2
t_e	47.69	5
t_e (d, e)	46.96	5
ΔHv/T_e	19.38	5
d 201 to	90.49	5
e 353 °C	0.1234	5
d' 25 to	88.09	5
e' 201 °C	0.1114	5
d_c g/ml	0.24	2
v_c ml/g	4.322	2
t_c °C	477.	2
P_c mm	9880.	2
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9178	5
t_e	0.8893	5
t_c	0.22	2
ΔHc kcal/m	2692.01	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 190 °C	0.701	2
210	0.616	2
230	0.547	2
250	0.490	2
B^v 180 to	628.1	4
A^v 260 °C	$\bar{2}.48970$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0236	4
n 600 °K	0.0014	4
o	-0.0_649	4
m' 700 to	0.1163	4
n' 1000 °K	0.0012	4
o'	-0.0_639	4
Surface tension dynes/cm. γ 20°C	28.4≠	2
30	27.5	2
40	26.6	2
Parachor [P] 20°C	751.3	4
30	751.9	4
40	752.2	4
Sugd.	736.2	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.88 T_c ≠ for undercooled liquid + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A.A. et al.

# purity applies to n_D 70°C

No. 159

NAME	n-Nonadecane		STRUCTURAL FORMULA $CH_3(CH_2)_{17}CH_3$
Mole % Pur. 99.5#	Ref. 3	Molecular Formula $C_{19}H_{40}$	Molecular Weight 268.510

		Ref.
F. P. °C	32.1	2
F. P. 100%		
B. P. °C		
760 mm	329.7	2
100	248.	2
30	212.40	4
10	184.9	5
1	138.8	5
Pressure°C		
mm 54.24	0.001	5
t_e	1586.4	5
Density		
g/ml 20°C	0.7855≠	2
d_4^t 25	0.7821≠	2
30	0.7787≠	4
a	0.7991	4
b	-0.0_368	4
Ref. Index		
n_D 20°C	1.4409≠	2
25	1.4388≠	2
70	1.4211≠	3
"C"	0.7442	4
MR (Obs.)	90.25	4
MR (Calc.)	89.942	2
(nD-d/2)	1.0481	4
Dielectric	2.08	5
A 212 to	7.0192	2
B 403 °C	1917.0	2
C	133.5	2
A* 212 to	1.7427	5
B* 379 °C	1839.43	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.31561	5
B' 212 °C	2127.54	5
C'	152.	5
A'* 25 to	2.06337	5
B'* 212 °C	2054.7	5
Ac 403 to	9.4412	5
Bc t_c °C	5302.	5
Cc	482.	5
Cryos. A° consts. B°		
t_e °C	368.49	5

		Ref.
dt/dP °C/mm		
54.24°C	8682.84	5
BP	0.0640	2
t_e	0.03599	5
30 mm	0.9035	5
ΔHm cal/g	40.78	3
ΔHv cal/g		
54.24°C	83.23	5
30 mm	64.38	5
BP	50.3	2
t_e	46.37	5
t_e (d, e)	45.64	5
ΔHv/T_e	19.40	5
d 212 to	89.88	5
e 369 °C	0.1201	5
d' 54 to	89.7	5
e' 212 °C	0.1192	5
d_c g/ml	0.24	2
v_c ml/g	4.097	2
t_c °C	487.	2
P_c mm	9120.	2
PV/RT		
54.24°C	1.0000	5
30 mm	1.0000	5
BP	0.9184	5
t_e	0.8885	5
t_c	0.22	2
ΔHc kcal/m	2838.94	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 190 °C	0.757	2
210	0.662	2
230	0.586	2
250	0.524	2
B^v 200 to	641.7	4
A^v 260 °C	$\bar{2}.49284$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0237	4
n 600 °K	0.0014	4
o	-0.0_649	4
m' 700 to	0.1164	4
n' 1000 °K	0.1165	4
o'	-0.0_639	4
Surface tension		
dynes/cm. 20°C	28.7≠	2
γ 30	27.8≠	2
40	26.9	2
Parachor [P]		
20°C	791.2	4
30	791.8	4
40	792.2	4
Sugd.	775.2	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.89 T_c$ ≠ for undercooled liquid + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A. A. et al.

purity applies to $n_D^{70°C}$

No. 160

NAME	n-Eicosane		STRUCTURAL FORMULA $CH_3(CH_2)_{18}CH_3$
Mole % Pur. 99.9#	Ref. 3	Molecular Formula $C_{20}H_{42}$	Molecular Weight 282.536

		Ref.
F.P. °C	36.8	2
F.P. 100%		
B.P. °C 760 mm	342.7	2
100	260.	2
30	223.61	4
10	195.7	5
1	148.9	5
Pressure mm °C 61.35	0.001	5
t_e	1608.	5
Density g/ml d_4^t 20°C	0.7887≠	2
25	0.7853≠	2
70	0.7550	3
a	0.8023	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4426≠	2
25	1.4405≠	2
70	1.4230	3
"C"	0.7439	4
MR (Obs.)	94.90	4
MR (Calc.)	94.56	2
(nD-d/2)	1.0482	4
Dielectric	2.08	5
A 224 to 417 °C	7.0225	2
B	1948.7	2
C	127.8	2
A* 224 to 393 °C	1.77166	5
B*	1874.62	5
K		
c		
t_k to t_x °C		
A' 25 to 224 °C	7.30970	5
B'	2155.78	5
C'	146.	5
A'* 25 to 224 °C	2.07885	5
B'*	2085.2	5
Ac 417 to t_c °C	9.6945	5
Bc	5807.	5
Cc	513.	5
Cryos. consts. A°		
B°		
t_e °C	382.84	5

		Ref.
dt/dP °C/mm 61.35°C	8808.41	5
BP	0.06492	5
t_e	0.03614	5
30 mm	0.9174	5
ΔHm cal/g	59.11	3
ΔHv cal/g 61.35°C	79.66	5
30 mm	63.08	5
BP	48.8	2
t_e	44.80	5
t_e (d, e)	43.99	5
$\Delta Hv/T_e$	19.29	5
d 224 to 383 °C	89.89	5
e	0.1199	5
d' 61 to 224 °C	85.93	5
e'	0.1022	5
d_c g/ml	0.24	2
v_c ml/g	4.247	2
t_c °C	502.	2
P_c mm	8360.	2
PV/RT 61.35°C	1.0000	5
30 mm	1.0000	5
BP	0.9122	5
t_e	0.8810	5
t_c	0.21	2
ΔHc kcal/m	2985.86	2
ΔHf		
ΔFf		
Viscosity centistokes η 190 °C	0.814	2
210	0.710	2
230	0.627	2
250	0.560	2
B^v 180 to 260 °C	651.4	4
A^v	$\bar{2}.50316$	4
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0236	4
n	0.0014	4
o	-0.0_649	4
m' 700 to 1000 °K	0.1162	4
n'	0.0012	4
o'	-0.0_639	4
Surface tension dynes/cm. γ 20°C	29.0≠	2
30	28.1≠	2
40	27.2	2
Parachor [P] 20°C	831.3	4
30	832.0	4
40	832.4	4
Sugd.	814.2	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in + Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.89\,T_c$ ≠ for undercooled liquid + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A.A. et al.

# purity applies to $n_D^{70°C}$

No. 161

NAME	n-Heneicosane					STRUCTURAL FORMULA $CH_3(CH_2)_{19}CH_3$
Mole % Pur.	99.9^1	Ref. 3	Molecular Formula	$C_{21}H_{44}$	Molecular Weight 296.562	

		Ref.
F.P. °C	40.5	2
F.P. 100%		
B.P. °C		
760 mm	356.5	2
100	271.52	4
30	232.88	4
10	203.07	5
1	152.94	5
Pressure °C		
mm 114.64	0.1	5
t_e	1607.4	5
Density		
g/ml 20°C	0.7917≠	2
d_4^t 25	0.7883≠	2
70	0.7583^1	3
a	0.8053	4
b	-0.0368	4
Ref. Index		
n_D 20°C	1.4441≠	2
25	1.4420≠	2
70	1.4247^1	3
"C"	0.7434	4
MR (Obs.)	99.52≠	2
MR (Calc.)	99.178	5
(nD-d/2)	1.0483≠	2
Dielectric	2.09	5
A 115 to	7.47174	5
B 492 °C	2424.	5
C	171.5	5
A* 115 to	2.24451	5
B* 410 °C	2343.	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 110 to	2.15834	5
B'* 233 °C	2309.1	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	396.79	5

		Ref.
dt/dP °C/mm		
114.64°C.	150.40	5
BP	0.0657	4
t_e	0.0360	5
30 mm	0.9765	5
ΔHm cal/g	38.44	3
ΔHv cal/g		
114.64°C.	68.7	5
30 mm	58.50	5
BP	47.05	5
t_e	43.69	5
t_e (d, e)	43.30	5
$\Delta Hv/T_e$	19.33	5
d 232 to	80.06	5
e 397 °C	0.0926	5
d' 115 to	78.58	5
e' 232 °C	0.0862	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
114.64°C.	1.0000	5
30 mm	1.0000	5
BP	0.8948	5
t_e	0.8624	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	26.91	5
γ 30	26.00	5
40	25.11	5
Parachor [P]		
20°C		
30		
40		
Sugd.	853.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid.

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A.A. et al.

^{1}purity applies to $n_D^{70°C.}$ and d_4^t

No. 162

NAME	n-Docosane		STRUCTURAL FORMULA $CH_3(CH_2)_{20}CH_3$
Mole % Pur. 99.7[1]	Ref. 3	Molecular Formula $C_{22}H_{46}$	Molecular Weight 310.588

		Ref.
F.P. °C	44.4	2
F.P. 100%		
B.P. °C		
760 mm	368.6	2
100	282.39	4
30	243.15	4
10	212.86	5
1	161.88	5
Pressure mm 122.90	0.1	5
t_e	1637.4	5
Density g/ml 20°C	0.7944≠	2
d_4^t 25	0.7910≠	2
70	0.7631[1]	3
a	0.8080	4
b	-0.0_3368	4
Ref. Index n_D 20°C	1.4455≠	2
25	1.4435≠	2
70	1.4260[1]	3
"C"	0.7431	4
MR (Obs.)	104.16≠	2
MR (Calc.)	103.796	5
(nD-d/2)	1.0483≠	2
Dielectric	2.09	5
A 242 to 499°C	7.49602	5
B	2482.52	5
C	169.3	5
A* 242 to 420 °C	2.28329	5
B*	2401.2	5
K		
c		
t_k to °C		
t_x		
A'		
B'		
C'		
A'* 110 to 242 °C	2.20092	5
B'*	2367.2	5
Ac t_c to °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	410.47	5

		Ref.
dt/dP °C/mm		
122.90°C.	149.36	5
BP	0.0666	4
t_e	0.0359	5
30 mm	0.9920	5
ΔHm cal/g	37.67	3
ΔHv cal/g		
122.90°C.	67.19	5
30 mm	57.28	5
BP	46.00	5
t_e	42.60	5
t_e (d, e)	43.38	5
ΔHv/T_e	19.82	5
d 242 to 410 °C	79.14	5
e	0.0899	5
d' 110 to 242 °C	77.32	5
e'	0.0824	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
122.90°C.	1.0000	5
30 mm	1.0000	5
BP	0.8943	5
t_e	0.8609	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	27.12	5
30	26.20	5
40	25.31	5
Parachor [P] 20°C		
30		
40		
Sugd.	892.2	5
Exp. L.l.%/wt. u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in ⁺		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

⁺ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A.A. et al.

[1] purity applies to n_D 70°C. and d_4^t

No. 163

NAME	n-Tricosane		STRUCTURAL FORMULA
Mole % Pur. 99.6[1]	Ref.	Molecular Formula $C_{23}H_{48}$	Molecular Weight 324.614
			$CH_3(CH_2)_{21}CH_3$

		Ref.
F.P. °C	47.6	2
F.P. 100%		
B.P. °C		
760 mm	380.2	2
100	292.84	4
30	253.03	4
10	222.27	5
1	170.48	5
Pressure °C mm 130.85	0.1	5
t_e	1666.0	5
Density g/ml 20°C	0.7969≠	2
d_4^t 25	0.7935≠	2
70	0.7641[1]	3
a	0.8105	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4468≠	2
25	1.4448≠	2
70	1.4276[1]	3
"C"	0.7428	4
MR (Obs.)	108.80≠	2
MR (Calc.)	108.414	5
(nD-d/2)	1.0484≠	2
Dielectric	2.09	5
A 252 to	7.51789	5
B 506 °C	2537.9	5
C	167.1	5
A* 252 to	2.31840	5
B* 433 °C	2456.0	5
K		
c		
t_k to		
t_x °C		
A'		
B'		
C'		
A'* 125 to	2.22338	5
B'* 252 °C	2420.4	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A° consts. B°		
t_e °C	423.63	5

		Ref.
dt/dP 130.85°C.		
25°C	151.91	5
BP	0.0675	2
t_e	0.0358	5
30 mm	1.0068	5
ΔHm cal/g	39.74	3
ΔHv cal/g 130.85°C.	65.77	5
30 mm	56.07	5
BP	44.99	5
t_e	41.56	5
t_e (d, e)	42.38	5
ΔHv/T_e	19.83	5
d 252 to	78.11	5
e 423 °C	0.0871	5
d' 125 to	76.16	5
e' 252 °C	0.0794	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 130.85°C.	1.0000	5
30 mm	1.0000	5
BP	0.8936	5
t_e	0.8594	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	27.31	5
γ 30	26.39	5
40	25.49	5
Parachor [P] 20°C		
30		
40		
Sugd.	931.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A. A. et al.

[1] purity applies to $n_D^{70°C.}$ and d_4^t

No. 164

NAME	n-Tetracosane			STRUCTURAL FORMULA $CH_3(CH_2)_{22}CH_3$
Mole % Pur. 99.9[1]	Ref. 3	Molecular Formula $C_{24}H_{50}$	Molecular Weight 338.640	

		Ref.
F.P. °C	50.9	2
F.P. 100%		
B.P. °C 760 mm 100 30 10 1	 391.3 302.82 262.46 231.3 178.7	 2 4 4 5 5
Pressure °C mm 138.4 t_e	 0.1 1694.4	 5 5
Density g/ml 20°C d_4^t 25 70	 $0.7991^{\neq}$ $0.7958^{\neq}$ 0.7657[1]	 2 2 3
a b	0.8123 $-0.0_{3}66$	4 4
Ref. Index n_D 20°C 25 70	 $1.4480^{\neq}$ $1.4460^{\neq}$ 1.4286[1]	 2 2 3
"C"	0.7427	5
MR (Obs.) MR (Calc.) (nD-d/2)	$113.44^{\neq}$ 113.032 $1.0484^{\neq}$	2 5 2
Dielectric	2.10	5
A 260 to B 500 °C C	7.53923 2591.9 165.1	5 5
A* 260 to B* 450 °C K c t_k to t_x °C	2.35245 2509.5	5 5
A' to B' °C C'		
A'* 135 to B'* 260 °C	2.26522 2472.2	5 5
Ac to Bc t_c °C Cc		
Cryos. A° consts. B°		
t_e °C	436.24	5

		Ref.
dt/dP °C/mm 138.4°C. BP t_e 30 mm	 154.37 0.0683 0.0358 1.021	 5 4 5 5
ΔHm cal/g	38.74	3
ΔHv cal/g 138.4°C. 30 mm BP t_e t_e (d, e) $\Delta Hv/T_e$	 64.4 54.93 44.05 40.59 40.35 19.40	 5 5 5 5 5 5
d 260 to e 435 °C d' 135 to e' 260 °C	77.09 0.0844 74.96 0.0763	5 5 5 5
d_c g/ml v_c ml/g t_c °C P_c mm		
PV/RT 138.4°C. 30 mm BP t_e t_c	 1.0000 1.0000 0.8933 0.8583	 5 5 5 5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension dynes/cm. 20°C γ 30 40	 27.47 26.58 25.70	 5 5 5
Parachor [P] 20°C 30 40 Sugd.	 970.2	 5
Exp. L.l.%/wt. u. Dispersion	 $98.^{\neq}$	 2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A.A. et al.

[1] purity applies to $n_D^{70°C.}$ and d_4^t

No. 165

NAME	n-Pentacosane		STRUCTURAL FORMULA
Mole % Pur. 99.8^{1}	Ref. 3	Molecular Formula $C_{25}H_{52}$	Molecular Weight 352.666
			$CH_3(CH_2)_{23}CH_3$

		Ref.
F.P. °C	53.7	2
F.P. 100%		
B.P. °C 760 mm	401.9	2
100	312.36	4
30	271.48	4
10	239.87	5
1	186.55	5
Pressure °C mm 145.7	0.1	5
t_e	1720.0	5
Density g/ml 20°C	$0.8012^{\neq}$	2
d_4^t 25	$0.7979^{\neq}$	2
70	0.7693^{1}	3
a	0.8144	4
b	-0.0366	4
Ref. Index n_D 20°C	$1.4491^{\neq}$	2
25	$1.4471^{\neq}$	2
70	1.4302^{1}	3
"C"	0.7424	5
MR (Obs.)	$118.09^{\neq}$	2
MR (Calc.)	117.65	5
(nD-d/2)	$1.0485^{\neq}$	2
Dielectric	2.10	5
A 270 to	7.55835	5
B 500 °C	2642.8	5
C	163.1	5
A* 270 to	2.38417	5
B* 460 °C	2560.0	5
K		
c		
t_k to		
t_x °C		
A'		
B'		
C'		
A'* 140 to	2.29501	5
B'* 270 °C	2521.2	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	448.26	5

		Ref.
dt/dP °C/mm 145.7°C.	156.7	5
BP	0.0690	2
t_e	0.0357	2
30 mm	1.0345	5
ΔHm cal/g	39.13	3
ΔHv cal/g 145.7°C.	63.08	5
30 mm	53.82	5
BP	43.12	5
t_e	39.64	5
t_e (d, e)	40.36	5
$\Delta Hv/T_e$	19.84	5
d 270 to	76.09	5
e 447 °C	0.0820	5
d' 140 to	73.82	5
e' 270 °C	0.0737	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 145.7°C.	1.0000	5
30 mm	1.0000	5
BP	0.8927	5
t_e	0.8570	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C γ	27.63	5
30	26.73	5
40	25.86	5
Parachor [P] 20°C		
30		
40		
Sugd.	1009.2	5
Exp. L.1.%/wt. u. Dispersion	$98.^{\neq}$	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

$^{+}$ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A. A. et al.

^{1}purity applies to $n_D^{70°C.}$ and d_4^t

No. 166

NAME	n-Hexacosane			STRUCTURAL FORMULA
Mole % Pur. 99.8[1]	Ref. 3	Molecular Formula $C_{26}H_{54}$	Molecular Weight 366.692	$CH_3(CH_2)_{24}CH_3$

		Ref.
F.P. °C	56.4	2
F.P. 100%		
B.P. °C		
760 mm	412.2	2
100	321.64	4
30	280.25	4
10	248.22	5
1	194.18	5
Pressure °C		
mm 152.75	0.1	5
t_e	1746.1	5
Density		
g/ml 20°C	0.8032≠	2
d_4^t 25	0.7998≠	2
70	0.7704[1]	3
a	0.8168	4
b	-0.0368	4
Ref. Index		
n_D 20°C	1.4501≠	2
25	1.4481≠	2
70	1.4310[1]	3
"C"	0.7421	5
MR (Obs.)	122.73≠	2
MR (Calc.)	122.268	5
(nD-d/2)	1.0485≠	2
Dielectric	2.103	5
A 278 to	7.57689	5
B 500 °C	2692.73	5
C	161.2	5
A* 278 to	2.41467	5
B* 470 °C	2609.5	5
K		
c		
t_k to		
t_x °C		
A'		
B'		
C'		
A'* 140 to	2.32296	5
B'* 278 °C	2569.0	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	459.98	5

		Ref.
dt/dP		
°C/mm		
152.75°C.	158.97	5
BP	0.0698	2
t_e	0.0356	5
30 mm	1.0477	5
ΔHm cal/g		
ΔHv cal/g		
152.75°C.	61.84	5
30 mm	52.78	5
BP	42.24	5
t_e	38.72	5
t_e (d, e)	39.42	5
ΔHv/T_e	19.82	5
d 278 to	75.17	5
e 460 °C	0.0799	5
d' 140 to	72.68	5
e' 278 °C	0.0710	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
152.75°C.	1.0000	5
30 mm	1.0000	5
BP	0.8924	5
t_e	0.8560	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °C		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °C		
h		
f' to		
g' °C		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	27.79	5
γ 30	26.86	5
40	25.95	5
Parachor [P]		
20°C		
30		
40		
Sugd.	1048.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A. A. et al.

[1] purity applies to n_D 70°C. and d_4^t

No. 167

NAME	n-Heptacosane	STRUCTURAL FORMULA
		$CH_3(CH_2)_{25}CH_3$

Mole % Pur. 99.0[1]	Ref. 3	Molecular Formula $C_{27}H_{56}$	Molecular Weight 380.718

		Ref.
F.P. °C	59.0	2
F.P. 100%		
B.P. °C		
760 mm	422.1	2
100	330.55	4
30	288.67	4
10	256.26	5
1	201.54	5
Pressure °C		
mm 159.55	0.1	5
t_e	1770.4	5
Density		
g/ml 20°C	0.8050≠	2
d_4^t 25	0.8016≠	2
70	0.7732[1]	3
a	0.8186	4
b	-0.0368	4
Ref. Index		
n_D 20°C	1.4511≠	2
25	1.4491≠	2
70	1.4321[1]	3
"C"	0.7420	4
MR (Obs.)	127.37≠	2
MR (Calc.)	126.886	5
(nD-d/2)	1.0486≠	2
Dielectric	2.11	5
A 285 to	7.59371	5
B 520 °C	2740.08	5
C	159.3	5
A* 285 to	2.4430	5
B* 500 °C	2656.4	5
K		
c		
t_k to		
t_x °C		
A'		
B'		
C'		
A'* 150 to	2.35017	5
B'* 285 °C	2614.8	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	471.24	5

		Ref.
dt/dP		
°C/mm		
159.55°C.	161.13	5
BP	0.070	2
t_e	0.03463	5
30 mm	1.0544	5
ΔHm cal/g	37.93	3
ΔHv cal/g		
159.55°C.	60.65	5
30 mm	51.8	5
BP	41.4	5
t_e	38.6	5
t_e (d, e)	38.76	5
ΔHv/T_e	19.90	5
d 285 to	74.30	5
e 470 °C	0.0779	5
d' 150 to	71.58	5
e' 285 °C	0.0685	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
159.55°C.	1.0000	5
30 mm	1.0000	5
BP	0.8919	5
t_e	0.8548	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	27.93	5
γ 30	26.99	5
40	26.09	5
Parachor [P]		
20°C		
30		
40		
Sugd.	1087.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A.A. et al.

[1] purity applies to $n_D^{70°C.}$ and d_4^t

No. 168

NAME	n-Octacosane		**STRUCTURAL FORMULA**
			$CH_3(CH_2)_{26}CH_3$
Mole % Pur. 99.0[1]	**Ref.** 3	**Molecular Formula** $C_{28}H_{58}$	**Molecular Weight** 394.744

		Ref.
F.P. °C	61.4	2
F.P. 100%		
B.P. °C		
760 mm	431.6	2
100	339.10	4
30	296.76	4
10	263.97	5
1	208.58	5
0.1	166.06	5
Press. mm t_e	1737.2	5
Density g/ml 20°C	0.8067≠	2
d_4^t 25	0.8033≠	2
70	0.7750[1]	3
a	0.8203	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4520≠	2
25	1.4500≠	2
70	1.4330[1]	3
"C"	0.7418	4
MR (Obs.)	132.01≠	2
MR (Calc.)	131.504	5
(nD-d/2)	1.0487≠	2
Dielectric	2.11	5
A 295 to	7.60972	5
B 520 °C	2785.80	5
C		
A* 295 to	2.47084	5
B* 490 °C	2702.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 162 to	2.37498	5
B'* 295 °C	2658.5	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	480.	5

		Ref.
dt/dP °C/mm		
0.1 mm	163.21	5
BP	0.071	2
t_e	0.03475	5
30 mm	1.0682	5
ΔHm cal/g	39.14	3
ΔHv cal/g		
0.1 mm	59.50	5
30 mm	50.8	5
BP	40.6	5
t_e	37.8	5
t_e (d, e)	37.77	5
ΔHv/T_e	19.79	5
d 295 to	73.25	5
e 480 °C	0.0756	5
d' 162 to	70.56	5
e' 295 °C	0.0666	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8912	5
t_e	0.8535	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.06	5
30	27.12	5
40	26.21	5
Parachor [P] 20°C		
30		
40		
Sugd.	1126.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A. A. et al.

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[1] purity applies to $n_D^{70°C}$ and d_4^t

No. 169

NAME	n-Nonacosane		**STRUCTURAL FORMULA** $CH_3(CH_2)_{27}CH_3$
Mole % Pur. 99.5	**Ref.** 3	**Molecular Formula** $C_{29}H_{60}$	**Molecular Weight** 408.770

		Ref.
F.P. °C	63.7	2
F.P. 100%		
B.P. °C		
760 mm	440.8	2
100	347.38	4
30	304.59	4
10	271.43	5
1	215.40	5
0.1	172.36	5
Press. mm t_e	1816.9	5
Density g/ml 20°C	0.8083≠	2
d_4^t 25	0.8049≠	2
30	0.8015≠	4
a	0.8219≠	4
b	-0.0_3368≠	4
Ref. Index n_D 20°C	1.4529≠	2
25	1.4508≠	2
30	1.4488≠	4
"C"	0.7418	4
MR (Obs.)	136.65≠	2
MR (Calc.)	136.122	5
(nD-d/2)	1.0487≠	2
Dielectric	2.11	5
A 302 to	7.62529	5
B 500 °C	2830.55	5
C		
A* 302 to	2.49691	5
B* 501 °C	2746.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 169 to	2.39938	5
B'* 302 °C	2701.3	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	492.51	5

		Ref.
dt/dP °C/mm		
0.1 mm	165.23	5
BP	0.071	5
t_e	0.0347	5
30 mm	1.0796	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	58.40	5
30 mm	49.9	5
BP	39.8	5
t_e	37.1	5
t_e (d, e)	36.94	5
$\Delta Hv/T_e$	19.78	5
d 302 to	72.49	5
e 491 °C	0.0742	5
d' 169 to	69.47	5
e' 302 °C	0.0643	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8910	5
t_e	0.8527	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	28.18≠	5
30	27.25≠	5
40	26.33≠	5
Parachor [P] 20°C		
30		
40		
Sugd.	1165.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77(2019) 1955 Schoerer A. A. et al.

No. 170

NAME	n-Triacontane				STRUCTURAL FORMULA $CH_3(CH_2)_{28}CH_3$
Mole % Pur. 99.0^1	Ref. 3	Molecular Formula $C_{30}H_{62}$		Molecular Weight 422.796	

		Ref.
F.P. °C	65.8	2
F.P. 100%		
B.P. °C		
760 mm	449.7	2
100	355.40	4
30	312.16	4
10	278.65	5
1	222.00	5
0.1	178.46	5
Press. mm t_e	1838.9	5
Density g/ml 20°C	0.8097≠	2
d_4^t 25	0.8064≠	2
30	0.8031	4
a	0.8229	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4536≠	2
25	1.4516≠	2
70	1.4348^1	3
"C"	0.7415	4
MR (Obs.)	141.29≠	2
MR (Calc.)	140.74	5
(nD-d/2)	1.0487≠	2
Dielectric	2.11	5
A 309 to	7.64044	5
B 481 °C	2874.34	5
C		
A* 309 to	2.52257	5
B* 511 °C	2789.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 175 to	2.42407	5
B'* 309 °C	2743.7	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	502.65	2

		Ref.
dt/dP °C/mm		
0.1 mm	167.20	5
BP	0.072	5
t_e	0.03469	5
30 mm	1.0907	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	57.33	5
30 mm	49.0	5
BP	39.1	5
t_e	36.3	5
t_e (d, e)	36.13	5
ΔHv/T_e	19.77	5
d 309 to	71.47	5
e 510 °C	0.0720	5
d' 170 to	68.45	5
e' 309 °C	0.0623	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8906	5
t_e	0.8517	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.29	5
30	27.37	5
40	26.49	5
Parachor [P] 20°C		
30		
40		
Sugd.	1204.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 JACS 77 (2019) 1955 Schoerer A. A. et al.

[1] purity applies to n_D 70°C.

No. 171

NAME	n-Hentriacontane		**STRUCTURAL FORMULA**
Mole % Pur.	Ref.	Molecular Formula $C_{31}H_{64}$	Molecular Weight 436.822
			$CH_3(CH_2)_{29}CH_3$

		Ref.
F.P. °C	67.9	2
F.P. 100%		
B.P. °C		
760 mm	458.	2
100	362.87	4
30	319.23	4
10	285.40	5
1	228.17	5
0.1	184.17	5
Press. mm t_e	1859.3	5
Density g/ml 20°C	0.8111≠	2
d_4^t 25	0.8078≠	2
30	0.8045	4
a	0.8243	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4543≠	2
25	1.4523≠	2
30	1.4503	4
"C"	0.7413	4
MR (Obs.)	145.93≠	2
MR (Calc.)	145.358	5
(nD-d/2)	1.0487	2
Dielectric	2.11	5
A 320 to	7.65344	5
B 485 °C	2914.17	5
C		
A* 320 to	2.54572	5
B* 518 °C	2829.	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 180 to	2.44635	5
B'* 320 °C	2782.1	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	512.12	5

		Ref.
dt/dP °C/mm		
0.1 mm	169.01	5
BP	0.073	5
t_e	0.03336	5
30 mm	1.0818	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	56.29	5
30 mm	48.1	5
BP	38.4	5
t_e	35.6	5
t_e (d, e)	36.69	5
ΔHv/T_e	20.52	5
d 320 to	70.41	5
e 508 °C	0.0699	5
d' 180 to	67.46	5
e' 320 °C	0.0607	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8905	5
t_e	0.8511	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.40	5
30	27.48	5
40	26.59	5
Parachor [P] 20°C		
30		
40		
Sugd.	1243.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 172

NAME	n-Dotriacontane		**STRUCTURAL FORMULA** $CH_3(CH_2)_{30}CH_3$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{32}H_{66}$	**Molecular Weight** 450.848

		Ref.
F.P. °C	69.7	2
F.P. 100%		
B.P. °C		
760 mm	467.	2
100	370.97	4
30	326.88	4
10	292.69	4
1	234.83	5
0.1	190.32	5
Press. mm		
t_e	1884.1	5
Density g/ml d_4^t 20°C	0.8124≠	2
25	0.8091≠	2
30	0.8058	4
a	0.8256	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4550≠	2
25	1.4530≠	2
30	1.4516	4
"C"	0.7412	4
MR (Obs.)	150.57≠	2
MR (Calc.)	149.976	5
(nD-d/2)	1.0488≠	2
Dielectric	2.12	5
A 324 to 530 °C	7.66838	5
B	2958.7	5
C		
A* 324 to 530 °C	2.56852	5
B*	2872.3	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* 186 to	2.46864	5
B'* 324 °C	2824.6	5
Ac t_c to °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	522.46	5

		Ref.
dt/dP °C/mm		
0.1 mm	171.00	5
BP	0.073	5
t_e	0.0347	5
30 mm	1.1119	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	55.37	5
30 mm	47.1	5
BP	38.24	5
t_e	35.0	5
t_e (d, e)	34.67	5
$\Delta Hv/T_e$	19.71	5
d 324 to 520 °C	67.70	5
e	0.0632	5
d' 186 to 324 °C	66.96	5
e'	0.0609	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8910	5
t_e	0.8500	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	28.50	5
30	27.58	5
40	26.69	5
Parachor [P] 20°C		
30		
40		
Sugd.	1282.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 173

NAME	n-Tritriacontane			STRUCTURAL FORMULA
				$CH_3(CH_2)_{31}CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{33}H_{68}$	Molecular Weight 464.874	

		Ref.
F.P. °C	71.4	2
F.P. 100%		
B.P. °C		
760 mm	475.	2
100	378.17	4
30	333.70	4
10	299.19	5
1	240.77	5
0.1	195.81	5
Press. mm t_e	1900.8	5
Density g/ml d_4^t 20°C	0.8136≠	2
25	0.8103≠	2
30	0.8070	4
a	0.8268	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4557≠	2
25	1.4536≠	2
30	1.4517	4
"C"	0.7412	4
MR (Obs.)	155.21≠	2
MR (Calc.)	154.594	5
(nD-d/2)	1.0488≠	2
Dielectric	2.12	5
A 330 to	7.68082	5
B 539 °C	2997.60	5
C		
A* 330 to	2.59301	5
B* 539 °C	2912.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 185 to	2.48943	5
B'* 330 °C	2862.0	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	531.48	5

		Ref.
dt/dP °C/mm		
0.1 mm	172.76	5
BP	0.074	5
t_e	0.03462	5
30 mm	1.1221	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	54.42	5
30 mm	46.5	5
BP	37.1	5
t_e	34.3	5
t_e (d, e)	33.99	5
ΔHv/T_e	19.69	5
d 330 to	68.70	5
e 529 °C	0.0665	5
d' 190 to	65.66	5
e' 330 °C	0.0574	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8895	5
t_e	0.8491	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.59	5
30	27.67	5
40	26.78	5
Parachor [P] 20°C		
30		
40		
Sugd.	1321.2	5
Exp. L. 1. %/wt. u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 174

NAME	n-Tetratriacontane	**STRUCTURAL FORMULA**	$CH_3(CH_2)_{32}CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{34}H_{70}$	Molecular Weight 478.900

		Ref.
F.P. °C	73.1	2
F.P. 100%		
B.P. °C		
760 mm	482.	2
100	384.47	4
30	339.65	4
10	304.87	5
1	245.97	5
0.1	200.62	5
Press. mm t_e	1918.5	5
Density g/ml 20°C	0.8148≠	2
d_4^t 25	0.8115≠	2
30	0.8082	4
a	0.8280	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4563≠	2
25	1.4542≠	2
30	1.4524	4
"C"	0.7410	4
MR (Obs.)	159.85≠	2
MR (Calc.)	159.212	5
(nD-d/2)	1.0488≠	2
Dielectric	2.12	5
A 336 to	7.69164	5
B 547 °C	3031.78	5
C		
A* 336 to	2.61320	5
B* 547 °C	2945.7	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 190 to	2.50973	5
B'* 336 °C	2895.2	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	539.49	5

		Ref.
dt/dP °C/mm		
0.1 mm	174.29	5
BP	0.074	5
t_e	0.03457	5
30 mm	1.1310	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	53.44	5
30 mm	45.7	5
BP	36.4	5
t_e	33.7	5
t_e (d, e)	33.32	5
ΔHv/T_e	19.69	5
d 336 to	67.89	5
e 537 °C	0.0653	5
d' 190 to	64.60	5
e' 336 °C	0.0557	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8895	5
t_e	0.8486	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.68	5
30	27.77	5
40	26.87	5
Parachor [P] 20°C		
30		
40		
Sugd.	1360.2	5
Exp. L.1.%/wt. u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 175

NAME	n-Pentatriacontane
STRUCTURAL FORMULA	$CH_3(CH_2)_{33}CH_3$
Mole % Pur.	
Ref.	
Molecular Formula	$C_{35}H_{72}$
Molecular Weight	492.926

		Ref.
F.P. °C	74.7	2
F.P. 100%		
B.P. °C		
760 mm	490.	2
100	391.68	4
30	346.47	4
10	311.36	5
1	251.90	5
0.1	206.10	5
Press. mm t_e	1938.5	5
Density g/ml 20°C	0.8157≠	2
d_4^t 25	0.8124≠	2
30	0.8093	4
a	0.8289	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4568≠	2
25	1.4548≠	2
30	1.4529	4
"C"	0.7408	4
MR (Obs.)	164.49≠	2
MR (Calc.)	163.83	5
(nD-d/2)	1.0489≠	2
Dielectric	2.12	5
A 343 to	7.70371	5
B 505 °C	3070.74	5
C	147.	5
A* 343 to	2.63438	5
B* 546 °C	2984.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 200 to	2.52835	5
B'* 343 °C	2932.1	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	548.62	5

		Ref.
dt/dP °C/mm		
0.1 mm	176.04	5
BP	0.0754	5
t_e	0.03453	5
30 mm	1.141	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	52.60	5
30 mm	45.0	5
BP	35.8	5
t_e	33.1	5
t_e (d, e)	32.73	5
ΔHv/T_e	19.67	5
d 343 to	67.21	5
e 546 °C	0.0641	5
d' 200 to	63.76	5
e' 343 °C	0.0541	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8892	5
t_e	0.8478	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.74	5
30	27.85	5
40	26.95	5
Parachor [P] 20°C		
30		
40		
Sugd.	1399.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 176

NAME	n-Hexatriacontane				**STRUCTURAL FORMULA**
Mole % Pur. 99.0	**Ref.** 3	**Molecular Formula** $C_{36}H_{74}$	**Molecular Weight** 506.952		$CH_3(CH_2)_{34}CH_3$

		Ref.
F.P. °C	76.2	2
F.P. 100%		
B.P. °C		
760 mm	497.	2
100	397.98	4
30	352.43	4
10	317.06	5
1	257.11	5
0.1	210.93	5
Press. mm t_e	1938.	5
Density g/ml 20°C	$0.8169^{\neq}$	2
d_4^t 25	$0.8136^{\neq}$	2
30	0.8103	4
a	0.8301	4
b	-0.0_366	4
Ref. Index n_D 20°C	$1.4573^{\neq}$	2
25	$1.4554^{\neq}$	2
30	1.4534	4
"C"	0.7406	4
MR (Obs.)	$169.13^{\neq}$	2
MR (Calc.)	168.448	5
(nD-d/2)	$1.0489^{\neq}$	2
Dielectric	2.12	5
A 349 to	7.71344	5
B 560 °C	3104.00	5
C	145.	5
A* 349 to	2.65726	5
B* 560 °C	3017.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	556.3	5

		Ref
dt/dP °C/mm		
0.1 mm	177.75	5
BP	0.0759	5
t_e	0.0355	5
30 mm	1.155	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		5
30 mm	43.65	5
BP	35.2	5
t_e	31.23	5
t_e (d, e)	31.7	5
$\Delta Hv/T_e$	19.09	5
d 349 to	64.22	5
e 554 °C	0.0584	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8852	5
t_e	0.8397	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.85	5
30	27.93	5
40	27.03	5
Parachor [P] 20°C		
30		
40		
Sugd.	1438.2	5
Exp. L.l.%/wt. u.		
Dispersion	$98.^{\neq}$	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 177

NAME	n-Heptatriacontane		STRUCTURAL FORMULA
			$CH_3(CH_2)_{35}CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{37}H_{76}$	Molecular Weight 520.978

		Ref.
F.P. °C	77.7	2
F.P. 100%		
B.P. °C		
760 mm	504.	2
100	404.28	4
30	358.39	4
10	322.74	5
1	262.32	5
0.1	215.74	5
Press. mm t_e	1973.0	5
Density g/ml 20°C	$0.8179^{\neq}$	2
d_4^t 25	$0.8146^{\neq}$	2
30	0.8113	4
a	0.8311	4
b	-0.0366	4
Ref. Index n_D 20°C	$1.4578^{\neq}$	2
25	$1.4559^{\neq}$	2
30	1.4539	4
"C"	0.7405	4
MR (Obs.)	$173.77^{\neq}$	2
MR (Calc.)	173.066	5
(nD-d/2)	$1.0489^{\neq}$	2
Dielectric	2.13	5
A 355 to	7.72381	5
B 570 °C	3138.26	5
C	144.	5
A* 355 to	2.67222	5
B* 570 °C	3051.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 210 to	2.56511	5
B'* 355 °C	2997.5	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A° consts. B°		
t_e °C	564.63	5

		Ref.
dt/dP °C/mm		
0.1 mm	179.09	5
BP	0.0764	5
t_e	0.3449	5
30 mm	1.1590	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	50.91	5
30 mm	43.6	5
BP	34.6	5
t_e	32.0	5
t_e (d, e)	31.54	5
ΔHv/T_e	19.61	5
d 355 to	65.75	5
e 562 °C	0.0618	5
d' 210 to	61.96	5
e' 355 °C	0.0512	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8888	5
t_e	0.8465	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	28.93	5
γ 30	28.00	5
40	27.10	5
Parachor [P] 20°C		
30		
40		
Sugd.	1477.2	5
Exp. L.1.%/wt. u.		
Dispersion	$98.^{\neq}$	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in $^{+}$		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

$^{+}$ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 178

NAME	n-Octatriacontane		STRUCTURAL FORMULA $CH_3(CH_2)_{36}CH_3$
Mole % Pur.	Ref.	Molecular Formula $C_{38}H_{78}$	Molecular Weight 535.004

		Ref.
F.P. °C	79.0	2
F.P. 100%		
B.P. °C		
760 mm	511.	2
100	410.58	4
30	364.35	4
10	328.43	5
1	267.51	5
0.1	220.55	5
Press. mm t_e	1990.2	5
Density g/ml 20°C	$0.8188^{\neq}$	2
d_4^t 25	$0.8155^{\neq}$	2
30	0.8122	4
a	0.8320	4
b	-0.0366	4
Ref. Index n_D 20°C	$1.4583^{\neq}$	2
25	$1.4564^{\neq}$	2
30	1.4543	4
"C"	0.7404	4
MR (Obs.)	$178.41^{\neq}$	2
MR (Calc.)	177.684	5
(nD-d/2)	$1.0489^{\neq}$	2
Dielectric	2.13	5
A 361 to	7.73405	5
B 521 °C	3172.56	5
C		
A* 361 to	2.69112	5
B* 580 °C	3085.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 216 to	2.58304	5
B'* 361 °C	3030.2	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	572.63	5

		Ref.
dt/dP °C/mm		
0.1 mm	180.62	5
BP	0.076	5
t_e	0.03444	5
30 mm	1.1679	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	50.12	5
30 mm	42.9	5
BP	34.1	5
t_e	31.4	5
t_e (d, e)	31.0	5
$\Delta Hv/T_e$	19.59	5
d 361 to	64.76	5
e 570 °C	0.0600	5
d' 216 to	61.20	5
e' 361 °C	0.0502	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8889	5
t_e	0.8458	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.99	5
30	28.07	5
40	27.17	5
Parachor [P] 20°C		
30		
40		
Sugd.	1516.2	5
Exp. L.l.%/wt. u.		
Dispersion	$98.^{\neq}$	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 179

NAME	n-Nonatriacontane					**STRUCTURAL FORMULA**
Mole % Pur.		**Ref.**	**Molecular Formula** $C_{39}H_{80}$	**Molecular Weight** 549.030		$CH_3(CH_2)_{37}CH_3$

		Ref.
F.P. °C	80.3	2
F.P. 100%		
B.P. °C		
760 mm	518.	2
100	416.88	4
30	370.30	4
10	334.10	5
1	272.69	5
0.1	225.33	5
Press. mm t_e	2007.1	5
Density g/ml 20°C	0.8197≠	2
d_4^t 25	0.8164≠	2
30	0.8131	4
a	0.8329	4
b	-0.0$_3$366	4
Ref. Index n_D 20°C	1.4588≠	2
25	1.4568≠	2
30	1.4549	4
"C"	0.7404	4
MR (Obs.)	183.05≠	2
MR (Calc.)	182.302	5
(nD-d/2)	1.0490≠	2
Dielectric	2.13	5
A 366 to	7.74491	5
B 523 °C	3207.87	5
C		
A* 366 to	2.71037	5
B* 587 °C	3120.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 220 to	2.60082	5
B'* 366 °C	3064.4	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A° consts. B°		
t_e °C	580.62	5

		Ref.
dt/dP °C/mm		
0.1 mm	182.18	5
BP	0.076	5
t_e	0.0345	5
30 mm	1.1755	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	49.37	5
30 mm	42.3	5
BP	33.6	5
t_e	30.9	5
t_e (d, e)	30.43	5
ΔHv/T_e	19.54	5
d 366 to	64.11	5
e 577 °C	0.0589	5
d' 220 to	60.35	5
e' 366 °C	0.0488	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8881	5
t_e	0.8451	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A_v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	to		
n	°K		
o			
m'	to		
n'	°K		
o'			
Surface tension dynes/cm.	20°C	29.07	5
γ	30	28.14	5
	40	27.24	5
Parachor [P]	20°C		
	30		
	40		
	Sugd.	1555.2	5
Exp. L.1.%/wt. u.			
Dispersion		98.≠	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 180

NAME	n-Tetracontane			**STRUCTURAL FORMULA** $CH_3(CH_2)_{38}CH_3$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{40}H_{82}$	**Molecular Weight** 563.056	

		Ref.
F.P. °C	81.5	2
F.P. 100%		
B.P. °C		
760 mm	525.	2
100	423.19	4
30	376.27	4
10	339.79	5
1	277.91	5
0.1	230.17	5
Press. mm t_e	2025.3	5
Density g/ml d_4^t 20°C	0.8205≠	2
25	0.8172≠	2
30	0.8139	4
a	0.8337	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4593≠	2
25	1.4573≠	2
30	1.4553	4
"C"	0.7404	4
MR (Obs.)	187.69≠	2
MR (Calc.)	186.92	5
(nD-d/2)	1.0490≠	2
Dielectric	2.13	5
A 372 to 526 °C	7.75334	5
B	3240.23	5
C		
A* 372 to 595 °C	2.72652	5
B*	3152.5	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* 225 to	2.61602	5
B'* 372 °C	3095.5	5
Ac to t_c °C		
Bc		
Cc		
Cryos. A°		
consts. B°		
t_e °C	588.65	5

		Ref.
dt/dP °C/mm		
0.1 mm	183.66	5
BP	0.077	5
t_e	0.03460	5
30 mm	1.1871	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	48.68	5
30 mm	41.7	5
BP	33.1	5
t_e	30.5	5
t_e (d, e)	29.78	5
ΔHv/T_e	19.41	5
d 372 to 585 °C	63.46	5
e	0.0578	5
d' 225 to 372 °C	59.68	5
e'	0.0478	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8881	5
t_e	0.8446	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	29.13	5
30	28.20	5
40	27.30	5
Parachor [P] 20°C		
30		
40		
Sugd.	1594.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	98.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 1

NAME	Methyl fluoride			STRUCTURAL FORMULA
	Fluoromethane			CH_3F
Mole % Pur.	Ref.	Molecular Formula CH_3F	Molecular Weight 34.034	

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	-78.35	2
100	-108.68	2
30	-122.19	2
10	-132.50	2
1	-149.60	5
Pressure mm 25°C		
t_e	511.5	5
Density g/ml 20°C		
d_4^t 25		
30		
a		
b		
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	6.668	5
(nD-d/2)		
Dielectric		
A -122 to	7.09761	2
B -20°C	740.22	2
C	253.89	2
A* -122 to	1.26539	5
B* -65°C	688.81	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac -20 to	7.81764	4
Bc t_c °C	1113.00	4
Cc	306.57	4
Cryos. consts. A°		
B°		
t_e °C	-85.23	5

		Ref.
dt/dP °C/mm 25°C		
BP	0.0238	2
t_e	0.0326	5
30 mm	0.3392	5
ΔHm cal/g		
ΔHv cal/g 25°C		
30 mm	130.76	5
BP	118.46	5
t_e	120.56	5
t_e (d, e)	120.37	5
ΔHv/T_e	21.83	5
d -125 to	96.49	5
e -65 °C	0.2804	5
d' to		
e' °C		
d_c g/ml	0.275	5
v_c ml/g	3.63	5
t_c °C	44.6	3
P_c mm	44080.	3
PV/RT 25°C		
30 mm	1.0000	5
BP	0.9700	5
t_e	0.9782	5
t_c	0.275	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C		
γ 30		
40		
Parachor [P] 20°C		
30		
40		
Sugd.	91.8	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Literature

PURIFICATION: Literature

LITERATURE REFERENCES: 3 Chem. Rev. 52, No. 1, 117 (1953), Kolbe and Lynn; 3' Physia 14, 104 (1948), Nichels and Wassenaar.

No. 2

NAME	Perfluoro-n-hexane			STRUCTURAL FORMULA $CF_3(CF_2)_4CF_3$
Mole % Pur.	Ref.	Molecular Formula C_6F_{14}	Molecular Weight 338.060	

		Ref.
F.P. °C	-87.1	3
F.P. 100%		
B.P. °C		
760 mm	57.11	3
100	8.27	5
30	-13.52	5
10	-30.1	5
1	-57.8	5
Pressure mm 25°C	218.9	5
t_e	890.9	5
Density g/ml 20°C	1.6995	3
d_4^t 25	1.6851	4
30	1.6695	3
a	1.7612	4
b	-0.0029	4
Ref. Index n_D 22°C	1.2515	3
25		
30		
"C"		
MR (Obs.)	31.584	4
MR (Calc.)	31.588≠	5
(nD-d/2)	0.4146	4
Dielectric		
A -14 to	7.12338	4
B 66 °C	1205.37	4
C	227.0	4
A* -14 to	2.09419	5
B* 65 °C	1130.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	61.81	5

		Ref.
dt/dP °C/mm		
25°C	0.1045	5
BP	0.03827	5
t_e	0.03573	5
30 mm	0.5473	5
ΔHm cal/g		
ΔHv cal/g		
25°C	22.50	5
30 mm	24.14	5
BP	21.00	5
t_e	19.62	5
t_e (d, e)	20.8	5
$\Delta Hv/T_e$	19.80	5
d -14 to	23.53	5
e 62 °C	0.0444	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9839	5
30 mm	1.0000	5
BP	0.9600	5
t_e	0.9559	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.4160	3
40	0.3270	3
50	0.2916	3
B^v 10 to	487.4	4
A^v 60 °C	$\bar{3}.95674$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	11.92	3
γ 30	10.93	3
40	10.10	3
Parachor [P] 20°C	369.4	4
30	367.9	4
40	365.6	4
Sugd.	364.8#	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Lit.

PURIFICATION: Lit.

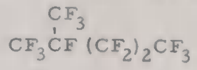
LITERATURE REFERENCES: 3 JACS 74, 3771 (1952) Stiles and Cady

≠ atomic ref. index for Fluorine in polyfluoro compounds = 1.22

atomic [P] for Fluorine in polyfluoro compounds = 24.

No. 3

NAME	Perfluoro-2-methylpentane		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6F_{14}	Molecular Weight 338.060



$CF_3\overset{\overset{CF_3}{|}}{C}F(CF_2)_2CF_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	57.73	3
100	8.30	5
30	-13.69	5
10	-30.5	5
1	-58.3	5
Pressure		
mm 25°C	216.8	5
t_e	831.	5
Density		
g/ml 20°C	1.7326	3
d_4^t 25	1.7169	4
30	1.7011	4
a	1.7946	4
b	-0.0031	4
Ref. Index		
n_D 22°C	1.2564	3
25		
30		
"C"	0.1688	4
MR (Obs.)	31.544	5
MR (Calc.)	31.588≠	2
(nD-d/2)	0.3901	5
Dielectric		
A -14 to	7.08320	4
B 73 °C	1198.63	4
C	227.5	4
A* -14 to	2.02668	5
B* 65 °C	1118.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	60.39	5

		Ref.
dt/dP °C/mm		
25°C	0.1065	5
BP	0.03878	5
t_e	0.03613	5
30 mm	0.5521	5
ΔHm cal/g		
ΔHv cal/g		
25°C	22.43	5
30 mm	23.90	5
BP	21.00	5
t_e	19.36	5
t_e (d, e)	20.89	5
$\Delta Hv/T_e$	19.62	5
d -14 to	23.34	5
e 60 °C	0.0406	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9933	5
30 mm	1.0000	5
BP	0.9600	5
t_e	0.8954	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.4538	3
30	0.3979	3
50	0.3130	3
B^v 10 to	509.6	4
A^v 60 °C	$\bar{3}.91880$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	12.12	3
30	11.41	3
40	10.49	3
Parachor [P] 20°C	364.1	4
30	365.2	4
40	364.2	4
Sugd.	364.8	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Lit.

PURIFICATION: Lit.

LITERATURE REFERENCES: 3 JACS 74, 3771 (1952) Stiles and Cady

≠ Atomic ref. index for Fluorine in polyfluoro compounds = 1.22

No. 4

NAME	Methyl chloride Chloromethane		STRUCTURAL FORMULA CH_3Cl
Mole % Pur.	Ref.	Molecular Formula CH_3Cl	Molecular Weight 50.491

		Ref.
F.P. °C	-97.720	3'
F.P. 100%		
B.P. °C		
760 mm	-24.22	2
100	-62.91	2
30	-80.03	2
10	-93.05	2
1	-114.58	5
Pressure mm 25°C	4309.7	5
t_e	662.9	5
Density g/ml-24°C	0.997	3^2
d_4^t -20	0.990	3^2
-10	0.973	3^2
a	0.9576	4
b	-0.0_2184	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	11.685	5
(nD-d/2)		
Dielectric		
A -80 to	6.99445	2
B 40 °C	902.45	2
C	243.60	2
A* -90 to	1.24262	5
B* 40 °C	841.23	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 40 to	7.81148	4
Bc t_c °C	1433.6	4
Cc	317.5	4
Cryos. consts. A°		
B°		
t_e °C	-27.34	4

		Ref.
dt/dP °C/mm		
25°C	0.0081	5
BP	0.0305	5
t_e	0.0340	5
30 mm	0.4292	5
ΔHm cal/g		
ΔHv cal/g		
25°C	89.54	5
30 mm	114.01	5
BP	101.30	5
t_e	102.04	5
t_e (d, e)	102.02	5
ΔHv/T_e	20.55	5
d -80 to	95.79	5
e -20 °C	0.2276	5
d' to		
e' °C		
d_c g/ml	0.353	3'
v_c ml/g	2.833	3'
t_c °C	143.1	3
P_c mm	50084.	3
PV/RT		
25°C	0.9073	5
30 mm	1.0000	5
BP	0.9660	5
t_e	0.9692	5
t_c	0.2752	4
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. -20°C		
γ -10		
40		
Parachor [P] 20°C		
30		
40		
Sugd.	110.4	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE:

PURIFICATION:

LITERATURE REFERENCES: 3 Chem. Rev. 52, No. 1, 117 (1953), Kolbe and Lynn; 3' Timmermans; 3^2 Lange

No. 5

NAME	Methylene chloride Dichloromethane		STRUCTURAL FORMULA CH_2Cl_2
Mole % Pur. 99.81	Ref. 1	Molecular Formula CH_2Cl_2	Molecular Weight 84.940

		Ref.
F.P. °C	-95.14	1
F.P. 100%		
B.P. °C		
760 mm	39.75	1
100	-7.27	1
30	-28.18	4
10	-44.12	4
1	-70.55	5
Pressure		
mm 25°C	435.86	5
t_e	841.21	5
Density		
g/ml 20°C	1.32554	1
d_4^t 25	1.31630	1
30	1.30700	4
a	1.36277	4
b	-0.00178	4
Ref. Index		
n_D 20°C	1.42416	1
25	1.42115	1
55	1.41519	1
"C"	0.4252	4
MR (Obs.)	16.357	4
MR (Calc.)	16.552	5
(nD-d/2)	0.76139	4
Dielectric		
A -28 to	7.07138	1
B 121 °C	1134.6	1
C	231.	5
A* -28 to	1.46352	5
B* 53 °C	1063.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 121 to	7.50819	5
Bc t_c °C	1462.59	5
Cc	278.60	5
Cryos. A°	0.02286	1
consts. B°		
t_e °C	42.63	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0575	5
BP	0.03692	4
t_e	0.03406	5
30 mm	0.5248	5
ΔHm cal/g	16.89	4
ΔHv cal/g		
25°C	80.55	5
30 mm	89.20	5
BP	78.18	5
t_e	77.74	5
t_e (d, e)	77.71	5
ΔHv/T_e	20.91	5
d -28 to	84.63	5
e 43 °C	0.1622	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	252.	5
P_c mm	56400.	5
PV/RT		
25°C	0.9727	5
30 mm	1.0000	5
BP	0.9600	5
t_e	0.9573	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.3868	1
40	0.3530	1
60	0.3274	1
80	0.3000	1
B^v 10 to	182.34	4
A^v 50 °C	$\bar{2}.9656$	4
(B^v) 50 to	223.35	4
(A^v) 90 °C	$\bar{2}.8447$	4
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	28.00	1
γ 30	26.41	1
40	24.84	1
Parachor [P]		
20°C	149.4	4
30	149.6	4
40	149.9	4
Sugd.	147.6	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

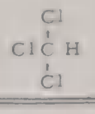
SOURCE: Dow, dist.

PURIFICATION: Dow, dist.

LITERATURE REFERENCES:

No. 6

NAME	Chloroform Trichloromethane		STRUCTURAL FORMULA
Mole % Pur. 99.74	Ref. 1	Molecular Formula $CHCl_3$	Molecular Weight 119.389



$$\begin{array}{c} Cl \\ Cl\,C\;H \\ Cl \end{array}$$

		Ref.
F.P. °C	-63.59	1
F.P. 100%		
B.P. °C		
760 mm	61.73	4
100	9.79	5
30	-13.06	5
10	-30.39	5
1	-58.93	5
Pressure mm 25°C	197.4	5
t_e	906.	5
Density g/ml 20°C	1.48316	1
d_4^t 25	1.47985	1
30	1.47650	4
a	1.49652	4
b	-0.0_362	4
Ref. Index n_D 20°C	1.44593	1
25	1.44293	1
50	1.42822	1
"C"	0.3984	4
MR (Obs.)	21.46	4
MR (Calc.)	21.419	5
(nD-d/2)	0.70435	4
Dielectric	4.639	1
A -15 to	6.90328	4
B 135°C	1163.0	4
C	227.	5
A* -15 to	1.41286	5
B* 90°C	1086.	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 135 to	7.3362	5
Bc t_c °C	1498.	5
Cc	276.	5
Cryos. A° consts. B°	0.02418	1
t_e °C	67.32	5

		Ref.
dt/dP °C/mm		
25°C	0.1205	5
BP	0.04107	5
t_e	0.0358	5
30 mm	0.5718	5
ΔHm cal/g	17.62	4
ΔHv cal/g		
25°C	62.11	5
30 mm	65.66	5
BP	57.30	5
t_e	56.68	5
t_e (d, e)	56.68	5
ΔHv/T_e	19.87	5
d -13 to	64.20	5
e 70 °C	0.1118	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	271.	5
P_c mm	39741.	5
PV/RT		
25°C	0.9990	5
30 mm	1.0000	5
BP	0.9610	5
t_e	0.9561	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.3789	1
30	0.3481	1
40	0.3206	1
50	0.2969	1
B^v 10 to	338.5	4
A^v 60 °C	$\bar{2}.42528$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	27.10	1
30	25.78	1
40	24.53	1
Parachor [P] 20°C	183.7	4
30	182.2	4
40	180.5	4
Sugd.	184.8	5
Exp. L.l.%/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 7

NAME	Carbon Tetrachloride		STRUCTURAL FORMULA CCl_4
Mole % Pur. 99.94	Ref. 1	Molecular Formula CCl_4	Molecular Weight 153.838

		Ref.
F.P. °C		
F.P. 100%	-22.99	1
B.P. °C		
760 mm	76.54	1
100	21.81	4
30	-2.31	4
10	-20.62	5
1	-50.82	5
Pressure		
mm 25°C	115.2	5
t_e	960.	5
Density		
g/ml 20°C	1.59397	1
d_4^t 25	1.58429	1
30	1.57456	4
a	1.63277	4
b	-0.00190	4
Ref. Index		
n_D 20°C	1.46005	1
25	1.45704	1
30	1.45409	4
"C"	0.3817	4
MR (Obs.)	26.44	5
MR (Calc.)	26.286	2
(nD-d/2)	0.66306	5
Dielectric		
A -15 to	6.93390	4
B 138 °C	1242.43	4
C	230.0	4
A* -5 to	1.51283	5
B* 100 °C	1155.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 138 to	7.3703	5
Bc t_c °C	1584.	5
Cc	277.	5
Cryos. A°	0.00629	1
consts. B°		
t_e °C	84.39	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1972	5
BP	0.04322	5
t_e	0.0360	5
30 mm	0.6040	5
ΔHm cal/g	5.04	4
ΔHv cal/g		
25°C	50.39	5
30 mm	52.31	5
BP	46.41	5
t_e	45.89	5
t_e (d, e)	45.90	5
ΔHv/T_e	19.74	5
d -5 to	52.14	5
e 90 °C	0.0736	5
d' to		
e' °C		
d_c g/ml	0.5576	3
v_c ml/g	1.7934	3
t_c °C	283.15	3
P_c mm	34200.	3
PV/RT		
25°C	0.9973	5
30 mm	1.0000	5
BP	0.9703	5
t_e	0.9645	5
t_c	0.2718	4
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.6091	1
40	0.47364	1
60	0.3825	1
B^v 10 to	493.5	4
A^v 70 °C	$\bar{2}.10154$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap.300°K	0.206	3'
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	26.84	1
γ 30	26.17	1
40	25.51	1
Parachor [P]		
20°C	219.7	4
30	221.0	4
40	222.1	4
Sugd.	222.0	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C	None	
Fire Point	None	
M. Spec.		1
Ultra V.		1
X-Ray Dif.		
Infrared		1
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow, Lit.

PURIFICATION: Distillation, Lit.

LITERATURE REFERENCES: 3 Young; 3' Timmermans

No. 8

NAME	Methylene bromochloride Bromochloromethane	STRUCTURAL FORMULA	CH_2ClBr
Mole % Pur.	Ref.	Molecular Formula CH_2ClBr	Molecular Weight 129.399

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	68.11	4
100	16.69	5
30	-5.89	5
10	-22.98	5
1	-51.09	5
Pressure mm 25°C	147.2	5
t_e	925.	5
Density g/ml 20°C	1.93439	1
d_4^t 25	1.92292	1
30	1.91143	4
a	1.98028	4
b	-0.00225	4
Ref. Index n_D 20°C	1.48376	1
25	1.48076	1
30	1.47761	4
"C"	0.3297	4
MR (Obs.)	19.13	4
MR (Calc.)	19.450	5
(nD-d/2)	0.51657	4
Dielectric		
A -6 to 297 °C	6.86624	4
B	1132.3	4
C	216.	4
A* -6 to 84 °C	1.41396	5
B*	1060.4	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to t_c °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	74.32	5

		Ref.
dt/dP °C/mm		
25°C	0.1514	5
BP	0.04074	5
t_e	0.0350	5
30 mm	0.5644	5
ΔHm cal/g		
ΔHv cal/g		
25°C	60.68	5
30 mm	64.81	5
BP	55.43	5
t_e	54.69	5
t_e (d, e)	54.64	5
$\Delta Hv/T_e$	20.36	5
d -6 to 74 °C	64.06	5
e	0.1267	5
d' to °C		
e'		
d_c g/ml	0.625	5
v_c ml/g	1.60	5
t_c °C	297.	5
P_c mm	45600.	5
PV/RT		
25°C	0.9919	5
30 mm	1.0000	5
BP	0.9618	5
t_e	0.9563	5
t_c	0.265	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.3486	1
40	0.2949	1
60	0.2569	1
B^v 10 to 70 °C	323.8	4
A^v	$\bar{2}.43796$	4
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	33.32	1
30	31.87	1
40	30.39	1
Parachor [P]		
20°C	160.7	4
30	160.9	4
40	161.3	4
Sugd.	161.3	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 9

NAME	Bromotrichloromethane					STRUCTURAL FORMULA CCl_3Br
Mole % Pur. 99.94	Ref. 1	Molecular Formula	CCl_3Br	Molecular Weight 198.297		

		Ref.
F.P. °C	-5.65	1
F.P. 100%		
B.P. °C		
760 mm	104.70	1
100	45.93	1
30	20.13	4
10	0.60	4
1	-31.53	5
Pressure		
mm 25°C	38.40	5
t_e	1027.13	5
Density		
g/ml 20°C	2.01221	1
d_4^t 25	2.00130	1
30	1.99037	4
a	2.05583	4
b	-0.00216	4
Ref. Index		
n_D 20°C	1.50633	1
25	1.50342	1
50	1.48903	1
"C"	0.3308	4
MR (Obs.)	29.294	4
MR (Calc.)	29.184	5
(nD-d/2)	0.50023	4
Dielectric		
A 20 to	6.86625	1
B 170 °C	1294.08	1
C	220.	5
A* 20 to	1.55053	5
B* 126 °C	1209.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 170 to	7.29174	5
Bc t_c °C	1647.18	5
Cc	269.99	5
Cryos. A°	0.00426	1
consts. B°		
t_e °C	115.72	5

		Ref.
dt/dP		
°C/mm		
25°C	0.5246	5
BP	0.04655	4
t_e	0.03682	5
30 mm	0.6450	5
ΔHm cal/g	3.05	4
ΔHv cal/g		
25°C	44.21	5
30 mm	44.56	5
BP	38.61	5
t_e	37.86	5
t_e (d, e)	37.84	5
$\Delta Hv/T_e$	19.30	5
d 20 to	45.97	5
e 116 °C	0.0703	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	318.	5
P_c mm	30812.	5
PV/RT		
25°C	0.9996	5
30 mm	1.0000	5
BP	0.9580	5
t_e	0.9492	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η 20 °C	0.8138	1
40	0.6091	1
60	0.4788	1
80	0.3893	1
B^v 10 to	577.74	4
A^v 50 °C	$\overline{3}.9400$	4
(B^v) 50 to	528.82	4
(A^v) 90 °C	$\overline{2}.0931$	4
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	31.26	1
γ 30	29.98	1
40	28.72	1
Parachor [P]		
20°C	233.0	4
30	233.2	4
40	233.3	4
Sugd.	235.7	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow, dist.

PURIFICATION: Dow, dist.

LITERATURE REFERENCES:

No. 10

NAME	Methyl bromide Bromomethane		STRUCTURAL FORMULA
Mole % Pur. 99.71	Ref. 1	Molecular Formula CH_3Br	Molecular Weight 94.950
			CH_3Br

		Ref.
F. P. °C	-94.07	1
F. P. 100%		
B. P. °C		
760 mm	+3.56	2
100	-39.40	2
30	-58.37	2
10	-72.78	2
1	-96.56	5
Pressure		
mm 25°C	1633.0	5
t_e	739.7	5
Density		
g/ml -10°C	1.73676	1
d_4^t -5	1.74566	1
30		
a	1.73676	4
b	-0.002411	4
Ref. Index		
n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	14.583	5
(nD-d/2)		
Dielectric		
A -58 to	6.95965	2
B 53 °C	986.59	2
C	238.32	2
A* -58 to	1.44534	5
B* 13 °C	920.93	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°	0.02120	1
consts. B°		
t_e °C	2.86	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0187	5
BP	0.0339	5
t_e	0.0346	5
30 mm	0.4752	5
ΔHm cal/g		
ΔHv cal/g		
25°C	56.99	5
30 mm	67.72	5
BP	59.74	5
t_e	59.83	5
t_e (d, e)	59.57	5
ΔHv/T_e	20.49	5
d -58 to	60.20	5
e 3 °C	0.1289	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	194.0	3'
P_c mm		
PV/RT		
25°C	0.9399	5
30 mm	1.0000	5
BP	0.9625	5
t_e	0.9632	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η -30 °C	0.2834	1
-20	0.2575	1
-10	0.2356	1
0	0.2174	1
B^v -40 to	256.30	4
A^v -10 °C	$\bar{2}.3985$	4
(B^v) -10 to	251.07	4
(A^v) 10°C	$\bar{2}.4183$	4
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. -10°C		
γ -		
40		
Parachor [P]		
20°C		
30		
40		
Sugd.	124.1	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow, Lit.

PURIFICATION: Dow, dist.

LITERATURE REFERENCES: 3 Timmermans; 3' Kirk and Othmer, Encyc. of Chemical Technology 2, 651 (1948)

No. 11

NAME	Ethyl chloride Chloroethane		STRUCTURAL FORMULA CH_2ClCH_3
Mole % Pur.	Ref.	Molecular Formula C_2H_5Cl	Molecular Weight 64.517

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	+12.27	2
100	-32.03	2
30	-51.59	2
10	-66.43	2
1	-90.93	5
Pressure		
mm 25°C	1199.0	4
t_e	764.2	5
Density		
g/ml 0°C	0.92390	3
d_4^t 10	0.90280	3
25	0.87062	4
a	0.92572	4
b	-0.00203	4
Ref. Index		
n_D 0°C	1.3790	3
10	1.3738	4
30		
"C"	0.5486	4
MR (Obs.)	16.137	4
MR (Calc.)	16.303	5
(nD-d/2)	0.8171	4
Dielectric		
A -50 to	6.94914	2
B 70 °C	1012.77	2
C	236.67	2
A* -50 to	1.25525	5
B* 40 °C	945.56	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 70 to		
Bc t_c °C		
Cc	250.	5
Cryos. A°		
consts. B°		
t_e °C	12.42	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0245	5
BP	0.0350	5
t_e	0.0348	5
30 mm	0.4896	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.07	5
30 mm	102.92	5
BP	90.55	5
t_e	90.52	5
t_e (d, e)	90.40	5
ΔHv/T_e	20.49	5
d -52 to	92.92	5
e 15 °C	0.1938	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9492	5
30 mm	1.0000	5
BP	0.9620	5
t_e	0.9618	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η 5 °C	0.3196	3
10	0.3090	3
B^v -5 to	230.8	4
A^v 20 °C	$\bar{2}.67499$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 5°C	21.20	3
γ 10	20.64	3
40		
Parachor [P]		
5°C	151.2	4
10	152.3	4
40		
Sugd.	149.4	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Literature

PURIFICATION: Literature

LITERATURE REFERENCES: 3 Timmermans

No. 12

NAME	1,2-Dichloroethane		STRUCTURAL FORMULA CH_2ClCH_2Cl
Mole % Pur. 99.93	Ref. 1	Molecular Formula $C_2H_4Cl_2$	Molecular Weight 98.966

		Ref.
F.P. °C	-35.66	1
F.P. 100%		
B.P. °C		
760 mm	83.47	1
100	29.83	4
30	5.83	5
10	-12.54	5
1	-43.11	5
Pressure		
mm 25°C	80.3	5
t_e	963.	5
Density		
g/ml 20°C	1.25309	1
d_4^t 25	1.24579	1
30	1.23847	1
a	1.28209	4
b	-0.00143	4
Ref. Index		
n_D 20°C	1.44476	1
25	1.44210	1
30	1.43929	4
"C"	0.4704	4
MR (Obs.)	21.01	4
MR (Calc.)	21.170	5
(nD-d/2)	0.81821	4
Dielectric	10.19	1
A 6 to	7.18431	4
B 161 °C	1358.5	4
C	232.	4
A* 6 to	1.58516	5
B* 102 °C	1274.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 161 to	7.6284	5
Bc t_c °C	1730.	5
Cc	283.	5
Cryos. A°	0.01770	1
consts. B°		
t_e °C	91.19	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2647	5
BP	0.04192	5
t_e	0.0342	5
30 mm	0.6038	5
ΔHm cal/g	20.03	4
ΔHv cal/g		
25°C	83.92	5
30 mm	86.31	5
BP	76.38	5
t_e	76.88	5
t_e (d, e)	75.40	5
$\Delta Hv/T_e$	20.88	5
d 6 to	87.06	5
e 92 °C	0.1279	5
d' to		
e' °C		
d_c g/ml	0.517	5
v_c ml/g	1.935	5
t_c °C	306.	5
P_c mm	49035.	5
PV/RT		
25°C	0.9994	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9499	5
t_c	0.260	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.6671	1
40	0.5287	1
60	0.4337	1
70	0.3982	1
B^v 10 to	441.1	4
A^v 80 °C	$\bar{2}.31484$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	32.48	1
γ 30	31.06	1
40	28.27	5
Parachor [P]		
20°C	188.5	4
30	188.6	4
40		
Sugd.	186.6	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 13

NAME	1,1,2-Trichloroethane			STRUCTURAL FORMULA
Mole % Pur. 99.90	Ref. 1	Molecular Formula $C_2H_3Cl_3$	Molecular Weight 133.415	$CHCl_2CH_2Cl$

		Ref.
F.P. °C	-36.59	1
F.P. 100%		
B.P. °C		
760 mm	113.77	1
100	55.78	4
30	30.36	5
10	11.04	5
1	-20.5	5
Pressure		
mm 25°C	22.49	5
t_e	1055.5	5
Density		
g/ml 20°C	1.43968	1
d_4^t 25	1.43194	1
30	1.42420	4
a	1.47061	4
b	-0.00154	4
Ref. Index		
n_D 20°C	1.47124	1
25	1.46868	1
30	1.46600	4
"C"	0.4323	4
MR (Obs.)	25.91	5
MR (Calc.)	26.037	2
(nD-d/2)	0.75140	5
Dielectric	7.116	1
A 30 to	6.84165	4
B 186 °C	1262.6	4
C	205.	4
A* 30 to	1.35368	5
B* 136 °C	1183.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 186 to	7.2567	5
Bc t_c °C	1599.	5
Cc	254.	5
Cryos. A°	0.02484	1
consts. B°		
t_e °C	125.68	5

		Ref.
dt/dP		
°C/mm		
25°C	0.8090	5
BP	0.0458	5
t_e	0.0356	5
30 mm	0.6349	5
ΔHm cal/g	20.68	4
ΔHv cal/g		
25°C	72.75	5
30 mm	72.06	5
BP	61.33	5
t_e	59.70	5
t_e (d, e)	59.8	5
$\Delta Hv/T_e$	19.97	5
d 25 to	75.96	5
e 126 °C	0.1286	5
d' to		
e' °C		
d_c g/ml	0.497	4
v_c ml/g	2.012	4
t_c °C	339.	5
P_c mm	36263.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9603	5
t_e	0.9511	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.82145	1
40	0.63307	1
60	0.50894	1
80	0.42113	1
B^v 10 to	489.6	4
A^v 90 °C	$\bar{2}.23823$	4
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	33.61	1
γ 30	32.24	1
40	30.84	1
Parachor [P]		
20°C	223.1	4
30	223.2	4
40	223.1	4
Sugd.	223.8	5
Exp. L.1.%/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 14

NAME	Methyl chloroform					STRUCTURAL FORMULA
						CH_3CCl_3
Mole % Pur. 99.92	Ref. 1	Molecular Formula $C_2H_3Cl_3$		Molecular Weight 133.425		

		Ref.
F.P. °C	-30.41	1
F.P. 100%		
B.P. °C		
760 mm	74.096	1
100	20.35	1
30	-3.301	4
10	-21.22	4
1	-50.75	5
Pressure		
mm 25°C	123.37	5
t_e	925.86	5
Density		
g/ml 20°C	1.33899	1
d_4^t 25	1.33063	1
30	1.32224	1
a	1.37247	4
b	-0.00164	4
Ref. Index		
n_D 20°C	1.43789	1
25	1.43519	1
50	1.42165	1
"C"	0.4338	4
MR (Obs.)	26.152	4
MR (Calc.)	26.037	5
(nD-d/2)	0.7684	4
Dielectric		
A -3 to	6.90160	1
B 131 °C	1202.60	1
C	225.	5
A* -3 to	1.46948	5
B* 91 °C	1129.16	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 131 to	7.32705	5
Bc t_c °C	1524.70	5
Cc	269.86	5
Cryos. A°	0.00558	1
consts. B°		
t_e °C	80.61	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1829	5
BP	0.04250	4
t_e	0.03643	5
30 mm	0.5916	5
ΔHm cal/g	4.90	4
ΔHv cal/g		
25°C	57.86	5
30 mm	61.12	5
BP	52.44	5
t_e	51.74	5
t_e (d, e)	51.71	5
$\Delta Hv/T_e$	19.51	5
d -3 to	60.75	5
e 81 °C	0.1122	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	266.	5
P_c mm	30274.	5
PV/RT		
25°C	0.9867	5
30 mm	1.0000	5
BP	0.9467	5
t_e	0.9405	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.6282	1
40	0.4899	1
60	0.3962	1
80	0.3612	1
B^v 10 to	495.84	4
A^v 50 °C	$\overline{2}.1070$	4
(B^v) 50 to	236.35	4
(A^v) 90 °C	$\overline{2}.8886$	4
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	25.39	1
γ 30	24.11	1
40	22.87	1
Parachor [P]		
20°C	223.7	4
30	223.8	4
40	223.9	4
Sugd.	223.8	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

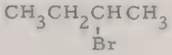
SOURCE: Dow, dist.

PURIFICATION: Dow, dist.

LITERATURE REFERENCES:

No. 15

NAME	sec. Butylbromide	STRUCTURAL FORMULA
Mole % Pur. 99.56	Ref. 1	Molecular Formula C_4H_9Br
Molecular Weight 137.028		



$CH_3CH_2\underset{Br}{C}HCH_3$

		Ref.
F.P. °C	-112.65	1
F.P. 100%		
B.P. °C		
760 mm	91.44	4
100	34.61	5
30	9.73	5
10	-9.08	5
1	-39.97	5
Pressure mm 25°C	64.65	5
t_e	989.	5
Density g/ml 20°C	1.26085	1
d_4^t 25	1.25354	1
30	1.24624	4
a	1.29004	4
b	-0.00144	4
Ref. Index n_D 20°C	1.43705	1
25	1.43453	1
50	1.42079	1
"C"	0.4598	4
MR (Obs.)	28.48	4
MR (Calc.)	28.437	5
(nD-d/2)	0.80662	4
Dielectric		
A 10 to	6.82724	4
B 146 °C	1229.08	4
C	220.	4
A* 10 to	1.36870	5
B* 110 °C	1149.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 146 to	7.2470	5
Bc t_c °C	1556.	5
Cc	266.	5
Cryos. consts. A°	0.03217	1
B°		
t_e °C	100.72	5

		Ref.
dt/dP °C/mm		
25°C	0.3281	5
BP	0.04510	5
t_e	0.0368	5
30 mm	0.6216	5
ΔHm cal/g	12.01	4
ΔHv cal/g		
25°C	60.64	5
30 mm	62.25	5
BP	53.67	5
t_e	52.73	5
t_e (d, e)	52.70	5
$\Delta Hv/T_e$	19.32	5
d 10 to	63.27	5
e 100 °C	0.1050	5
d' to		
e' °C		
d_c g/ml	0.412	5
v_c ml/g	2.425	5
t_c °C	286.	5
P_c mm	26756.	5
PV/RT		
25°C	0.9978	5
30 mm	1.0000	5
BP	0.9579	5
t_e	0.9507	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.4692	1
40	0.3884	1
60	0.3293	1
80	0.2843	1
B^v 10 to	374.6	4
A^v 90 °C	$\bar{2}.39320$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	25.01	1
30	23.90	1
40	22.82	1
Parachor [P] 20°C	243.0	4
30	243.1	4
40	243.0	4
Sugd.	241.1	5
Exp. L. 1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 16

NAME	1,2-Dibromo-1,1-dichloroethane	**STRUCTURAL FORMULA**
		CH_2BrCCl_2Br
Mole % Pur. 99.97	**Ref.** 1	**Molecular Formula** $C_2H_2Cl_2Br_2$ — **Molecular Weight** 256.782

		Ref.
F.P. °C	-66.85	1
F.P. 100%		
B.P. °C		
760 mm	178.30	1
100	111.28	4
30	81.54	4
10	58.79	4
1	20.64	5
Pressure mm 25°C	1.3482	5
t_e	1246.14	5
Density g/ml 20°C	2.26216	1
d_4^t 25	2.25230	1
30	2.24244	4
a	2.30159	4
b	-0.00197	4
Ref. Index n_D 20°C	1.55666	1
25	1.55400	1
35	1.54889	1
"C"	0.3215	4
MR (Obs.)	36.523	4
MR (Calc.)	36.700	5
(nD-d/2)	0.42558	4
Dielectric		
A 81 to	7.03778	4
B 246 °C	1593.35	4
C	205.	5
A* 81 to	1.75459	5
B* 209 °C	1493.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to		
B' 81 °C		
C'		
A'* to		
B'* °C		
Ac to	7.45239	5
Bc t_c °C	1989.74	5
Cc	258.0	5
Cryos. consts. A°	0.01439	1
B°		
t_e °C	199.18	5

		Ref
dt/dP °C/mm		
25°C	11.0081	5
BP	0.05269	4
t_e	0.03573	5
30 mm	0.7460	5
ΔHm cal/g	4.73	4
ΔHv cal/g		
25°C	46.37	5
30 mm	43.51	5
BP	37.75	5
t_e	36.55	5
t_e (d, e)	36.50	5
$\Delta Hv/T_e$	19.87	5
d 81 to	48.38	5
e 199 °C	0.0596	5
d' 25 to	47.63	5
e' 81 °C	0.0504	5
d_c g/ml		
v_c ml/g		
t_c °C	420.	5
P_c mm	32870.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9617	5
t_e	0.9482	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	1.4680	1
40	1.0399	1
60	0.7852	1
80	0.6209	1
B^v 10 to	687.51	4
A^v 50 °C	$\overline{3}.8219$	4
(B^v) 50 to	599.96	4
(A^v) 90 °C	$\overline{2}.0944$	4
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	39.12	1
30	37.92	1
40	36.83	1
Parachor [P] 20°C	283.9	4
30	284.2	4
40	284.6	4
Sugd.	288.4	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow, dist.

PURIFICATION: Dow, dist.

LITERATURE REFERENCES:

No. 17

NAME	Ethyl bromide			STRUCTURAL FORMULA
	Bromoethane			
Mole % Pur. 99.87	Ref. 1	Molecular Formula C_2H_5Br	Molecular Weight 108.976	C_2H_5Br

		Ref.
F.P. °C	-119.33	1
F.P. 100%		
B.P. °C		
760 mm	38.35	2
100	-10.00	2
30	-31.30	2
10	-47.45	2
1	-74.08	5
Pressure		
mm 25°C	468.60	5
t_e	837.3	5
Density		
g/ml 20°C	1.45939	1
d_4^t 25	1.44917	1
30	1.43889	4
a	1.50075	4
b	-0.00195	4
Ref. Index		
n_D 20°C	1.42416	1
25	1.42104	1
30	1.41776	4
"C"	0.3862	4
MR (Obs.)	19.060	4
MR (Calc.)	19.201	5
(nD-d/2)	0.6945	4
Dielectric	9.112	1
A -32 to 110 °C	6.91995	2
B	1090.81	2
C	231.71	2
A* -32 to 51 °C	1.42140	5
B*	1019.18	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 110 to t_c °C	7.59098	5
Bc	1545.3	5
Cc	290.0	5
Cryos. consts. A°		
B°		
t_e °C	41.19	5

		Ref.
dt/dP °C/mm		
25°C	0.0560	5
BP	0.0382	5
t_e	0.0354	5
30 mm	0.5330	5
ΔHm cal/g		
ΔHv cal/g		
25°C	59.91	5
30 mm	66.69	5
BP	58.32	5
t_e	57.98	5
t_e (d, e)	57.73	5
ΔHv/T_e	20.01	5
d -32 to 41 °C	62.93	5
e	0.1203	5
d' to °C		
e'		
d_c g/ml	0.507	3
v_c ml/g	1.9724	3
t_c °C	230.7	3
P_c mm	42000.	3
PV/RT		
25°C	0.9716	5
30 mm	1.0000	5
BP	0.9600	5
t_e	0.9574	5
t_c	0.2873	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 0 °C	0.3191	1
10	0.2914	1
20	0.2690	1
30	0.2503	1
B^v -10 to 40 °C	291.22	4
A^v	$\bar{2}.43797$	4
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	23.70	1
30	22.46	1
40	21.45	5
Parachor [P] 20°C	165.1	4
30	165.3	4
40		
Sugd.	163.1	5
Exp. L.1.%/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow, literature

PURIFICATION: Distillation, literature

LITERATURE REFERENCES: 3 Chem. Rev. 52, No. 1, 117 (1953) Kolbe and Lynn

No. 18

NAME	1,2-Dibromoethane						STRUCTURAL FORMULA
	Ethylenedibromide						$CH_2Br\,CH_2Br$
Mole % Pur.	99.91	Ref.	1	Molecular Formula	$C_2H_4Br_2$	Molecular Weight 187.884	

		Ref.
F.P. °C	9.79	1
F.P. 100%	9.85	4
B.P. °C		
760 mm	131.36	1
100	70.21	4
30	43.04	5
10	22.22	5
1	-12.74	5
Pressure mm 25°C	11.70	5
t_e	1112.	5
Density g/ml 20°C	2.17920	1
d_4^t 25	2.16877	1
30	2.15833	4
a	2.22090	4
b	-0.00208	4
Ref. Index n_D 20°C	1.53868	1
25	1.53603	1
30	1.53317	4
"C"	0.3237	4
MR (Obs.)	27.00	4
MR (Calc.)	26.966	5
(nD-d/2)	0.44908	4
Dielectric	4.771	1
A 43 to	7.06245	4
B 215 °C	1469.7	4
C	220.	4
A* 43 to	1.67853	5
B* 156 °C	1374.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 215 to	7.4959	5
Bc t_c °C	1871.	5
Cc	276.	5
Cryos. consts. A°	0.01508	1
B°		
t_e °C	145.84	5

		Ref.
dt/dP °C/mm		
25°C	1.5320	5
BP	0.04803	5
t_e	0.0356	5
30 mm	0.6820	5
ΔHm cal/g	12.76	4
ΔHv cal/g		
25°C	52.48	5
30 mm	51.70	5
BP	45.6	5
t_e	44.58	5
t_e (d, e)	44.60	5
$\Delta Hv/T_e$	19.99	5
d 43 to	54.67	5
e 146 °C	0.0690	5
d' 25 to	53.58	5
e' 43 °C	0.0438	5
d_c g/ml	0.776	5
v_c ml/g	1.288	5
t_c °C	377.	5
P_c mm	42731.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9645	5
t_e	0.9541	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.79558	1
40	0.60455	1
60	0.48166	1
80	0.39768	1
B^v 10 to	503.1	4
A^v 90 °C	$\bar{2}.17512$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	38.51	1
γ 30	37.22	1
40	35.13	5
Parachor [P] 20°C	214.8	4
30	215.0	4
40		
Sugd.	214.0	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in	0.071	1

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

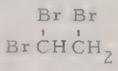
SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 19

NAME	1,1,2-Tribromoethane			STRUCTURAL FORMULA
Mole % Pur. 99.96	Ref. 1	Molecular Formula $C_2H_3Br_3$	Molecular Weight 266.792	



$BrCHCH_2$ with Br above C-1 and C-2 ($Br_2CH{-}CH_2Br$)

		Ref.
F.P. °C	-29.21	1
F.P. 100%	-29.19	4
B.P. °C 760 mm	188.93	1
100	120.43	4
30	90.21	5
10	67.16	5
1	28.62	5
Pressure mm 25°C	0.7751	5
t_e	1263.	5
Density g/ml 20°C	2.62111	1
d_4^t 25	2.61007	1
30	2.59903	4
a	2.66526	4
b	-0.00221	4
Ref. Index n_D 20°C	1.59336	1
25	1.59076	1
30	1.58797	4
"C"	0.2945	4
MR (Obs.)	34.51	4
MR (Calc.)	34.731	5
(nD-d/2)	0.28278	4
Dielectric	5.609	1
A 90 to 270 °C	6.94373	4
B	1562.12	4
C	196.	4
A* 90 to 221 °C	1.68974	5
B*	1469.3	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 270 to t_c °C	7.3511	5
Bc	1964.	5
Cc	252.	5
Cryos. consts. A°	0.01843	1
B°		
t_e °C	211.00	5

		Ref.
dt/dP °C/mm 25°C	18.078	5
BP	0.05408	5
t_e	0.0364	5
30 mm	0.7567	5
ΔHm cal/g	8.1637	4
ΔHv cal/g 25°C	47.27	5
30 mm	43.33	5
BP	36.76	5
t_e	35.43	5
t_e (d, e)	35.29	5
ΔHv/T_e	19.52	5
d 90 to 211 °C	49.33	5
e	0.0665	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C	451.	5
P_c mm	35925.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9529	5
t_e	0.9373	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η 20 °C	1.4784	1
40	1.0190	1
60	0.7616	1
80	0.5984	1
B^v 10 to 90 °C	639.3	4
A^v	$\bar{3}.96698$	4
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	44.36	1
30	43.12	1
40	41.68	1
Parachor [P] 20°C	262.7	4
30	263.0	4
40	263.1	4
Sugd.	264.9	5
Exp. L.l.%/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in + Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

TR = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 20

NAME	Isopropyl chloride 2-Chloropropane		STRUCTURAL FORMULA $(CH_3)_2CHCl$
Mole % Pur. 99.90	Ref. 1	Molecular Formula C_3H_7Cl	Molecular Weight 78.543

		Ref.
F.P. °C	-117.18	1
F.P. 100%	-117.15	1
B.P. °C		
760 mm	34.8	4
100	-12.17	4
30	-32.93	4
10	-48.69	5
1	-74.72	5
Pressure		
mm 25°C	529.5	5
t_e	827.2	5
Density		
g/ml 20°C	0.86257	1
d_4^t 25	0.85599	1
30	0.84936	4
a	0.88926	4
b	-0.00124	4
Ref. Index		
n_D 20°C	1.37759	1
25	1.37464	1
30	1.37149	4
"C"	0.5855	4
MR (Obs.)	20.973	4
MR (Calc.)	20.921	5
(nD-d/2)	0.94630	4
Dielectric	9.52	1
A -32 to	6.96540	5
B 90 °C	1081.6	5
C	230.	5
A* -32 to	1.33241	5
B* 47 °C	1012.14	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 90 to	7.39133	5
Bc t_c °C	1372.3	5
Cc	270.6	5
Cryos. A°	0.03661	1
consts. B°		
t_e °C	37.21	5

		Ref.
dt/dP		
°C/mm		
25°C	0.04931	5
BP	0.03704	4
t_e	0.03466	5
30 mm	0.5198	4
ΔHm cal/g	22.48	4
ΔHv cal/g		
25°C	83.27	5
30 mm	93.66	5
BP	81.53	5
t_e	81.11	5
t_e (d, e)	81.10	5
ΔHv/T_e	20.52	5
d -32 to	87.76	5
e 40 °C	0.1791	5
d' to		
e' °C		
d_c g/ml	0.341	5
v_c ml/g	2.934	5
t_c °C	212.	5
P_c mm	35451.	5
PV/RT		
25°C	0.9690	5
30 mm	1.0000	5
BP	0.9601	5
t_e	0.9578	5
t_c	0.27	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 0 °C	0.4499	1
10	0.4079	1
20	0.3724	1
30	0.3410	1
B^v 0 to	334.0	4
A^v 40 °C	$\bar{2}$.43017	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	18.16	5
γ 30	17.01	5
40	15.87	5
Parachor [P]		
20°C		
30		
40		
Sugd.	188.4	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 21

NAME	Propylene dichloride 1, 2-Dichloropropane	**STRUCTURAL FORMULA** $CH_3CHClCH_2Cl$
Mole % Pur. 99.76	**Ref.** 1	
Molecular Formula $C_3H_6Cl_2$	**Molecular Weight** 112.992	

		Ref.
F.P. °C	-100.53	1
F.P. 100%	-100.44	4
B.P. °C		
760 mm	96.37	1
100	40.05	1
30	15.18	4
10	-3.7	5
1	-35.0 ?	5
Pressure		
mm 25°C	49.67	4
t_e	1003.0	5
Density		
g/ml 20°C	1.15597	1
d_4^t 25	1.14936	1
30	1.14273	4
a	1.18241	4
b	-0.00131	4
Ref. Index		
n_D 20°C	1.43937	1
25	1.43679	1
30	1.42389	1
"C"	0.5041	4
MR (Obs.)	25.725	4
MR (Calc.)	25.788	5
(nD-d/2)	0.86138	4
Dielectric	8.96	1
A 15 to	6.96395	4
B 160 °C	1295.9	4
C	221.	5
A* 15 to	1.41927	5
B* 115 °C	1214.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 160 to	7.35053	5
Bc t_c °C	1610.6	5
Cc	265.2	5
Cryos. A°	0.02592	1
consts. B°		
t_e °C	106.03	5

		Ref.
dt/dP		
°C/mm		
25°C	0.4082	4
BP	0.04442	4
t_e	0.03573	5
30 mm	0.6231	4
ΔHm cal/g	13.53	4
ΔHv cal/g		
25°C	77.00	5
30 mm	78.23	5
BP	67.70	5
t_e	66.76	5
t_e (d, e)	66.45	5
$\Delta Hv/T_e$	19.89	5
d 15 to	80.17	5
e 110 °C	0.1294	5
d' to		
e' °C		
d_c g/ml	0.41	5
v_c ml/g	2.44	5
t_c °C	304.3	5
P_c mm	33300.	5
PV/RT		
25°C	0.9978	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9506	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.7415	1
40	0.5830	1
60	0.4747	1
80	0.3978	1
B^v 10 to	459.1	4
A^v 90 °C	$\bar{2}.29983$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	28.65	1
γ 30	27.37	1
40	26.15	1
Parachor [P] 20°C	226.2	4
30	226.2	4
40	226.3	4
Sugd.	225.6	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water	0.275	1
Water in	0.132	1

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Dow, Distillation

LITERATURE REFERENCES:

No. 22

NAME	Trimethylene chloro bromide		STRUCTURAL FORMULA $CH_2ClCH_2CH_2Br$
Mole % Pur. 99.79	Ref. 1	Molecular Formula C_3H_6ClBr	Molecular Weight 157.451

		Ref.
F.P. °C	-58.87	1
F.P. 100%		
B.P. °C		
760 mm	143.36	1
100	81.16	1
30	53.57	4
10	32.4	5
1	-3.0	5
Pressure		
mm 25°C	6.495	5
t_e	1127.0	5
Density		
g/ml 20°C	1.59694	1
d_4^t 25	1.58925	1
30		
a	1.62775	4
b	-0.0_3154	4
Ref. Index		
n_D 20°C	1.48635	1
25	1.48414	1
30	1.47260	1
"C"	0.4014	4
MR (Obs.)	28.325	4
MR (Calc.)	28.686	5
(nD-d/2)	0.68788	4
Dielectric	25° 9.431	1
A 53 to	7.03215	1
B 215 °C	1475.23	1
C	212.	1
A* 53 to	1.59125	5
B* 175 °C	1387.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 215 to	7.32546	5
Bc t_c °C	1760.2	5
Cc	252.	5
Cryos. A°	0.02418	1
consts. B°		
t_e °C	158.64	5

		Ref.
dt/dP		
°C/mm		
25°C	2.582	5
BP	0.04891	4
t_e	0.0359	5
30 mm	0.6921	4
ΔHm cal/g	14.00	4
ΔHv cal/g		
25°C	66.92	5
30 mm	64.89	5
BP	55.78	5
t_e	54.29	5
t_e (d, e)	54.23	5
$\Delta Hv/T_e$	19.79	5
d 53 to	70.32	5
e 165 °C	0.1014	5
d' to		
e' °C		
d_c g/ml	0.522	5
v_c ml/g	1.914	5
t_c °C	379.2	5
P_c mm	36000.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9380	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.9148	1
40	0.7042	1
60	0.5659	1
80	0.4685	1
B^v 10 to	489.5	4
A^v 90 °C	$\bar{2}.28480$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	36.11	1
γ 30	34.81	1
40	33.72	1
Parachor [P]		
20°C	241.7	4
30	241.8	4
40	242.3	4
Sugd.	239.3	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water	1.84	1
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Dow, Distillation

LITERATURE REFERENCES:

No. 23

NAME	1,3-Dibromopropane		STRUCTURAL FORMULA
	Trimethylene dibromide		$Br(CH_2)_3Br$
Mole % Pur. 99.89	Ref. 1	Molecular Formula $C_3H_6Br_2$	Molecular Weight 201.910

		Ref.
F.P. °C	-34.20	1
F.P. 100%		
B.P. °C		
760 mm	166.67	1
100	100.82	4
30	71.32	5
10	48.64	5
1	10.41	5
Pressure		
mm 25°C	2.604	5
t_e	1206.5	5
Density		
g/ml 20°C	1.98009	1
d_4^t 25	1.97119	1
30	1.96229	4
a	2.01568	4
b	-0.00178	4
Ref. Index		
n_D 20°C	1.52318	1
25	1.52075	1
30	1.51807	4
"C"	0.3467	4
MR (Obs.)	31.16	4
MR (Calc.)	31.158	5
(nD-d/2)	0.53314	4
Dielectric		
A 71 to	7.19874	4
B 242 °C	1678.3	4
C	222.	4
A* 71 to	1.81483	5
B* 196 °C	1473.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 242 to	7.6370	5
Bc t_c °C	2110.	5
Cc	278.	5
Cryos. consts. A°	0.02865	1
B°		
t_e °C	185.62	5

		Ref.
dt/dP °C/mm		
25°C	6.1946	5
BP	0.05144	5
t_e	0.0356	5
30 mm	0.7421	5
ΔHm cal/g	16.10	4
ΔHv cal/g		
25°C	54.25	5
30 mm	52.47	5
BP	46.52	5
t_e	45.30	5
t_e (d, e)	45.34	5
$\Delta Hv/T_e$	19.93	5
d 71 to	56.92	5
e 186 °C	0.0624	5
d' to		
e' °C		
d_c g/ml	0.732	5
v_c ml/g	1.367	5
t_c °C	414.	5
P_c mm	38811.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9583	5
t_e	0.9451	5
t_c	0.25	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	1.0431	1
40	0.7838	1
60	0.6192	1
80	0.5068	1
B^v 10 to	523.7	4
A^v 90 °C	$\bar{2}.22212$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	39.93	1
γ 30	38.60	1
40	37.34	1
Parachor [P]		
20°C	256.3	4
30	256.5	4
40	257.5	4
Sugd.	253.0	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 24

NAME	Propylene dibromide 1, 2-Dibromopropane		STRUCTURAL FORMULA $CH_2Br\,CHBr\,CH_3$
Mole % Pur. 99.86	Ref. 1	Molecular Formula $C_3H_6Br_2$	Molecular Weight 201.910

		Ref.
F.P. °C	-55.50	1
F.P. 100%		
B.P. °C 760 mm	141.99	4
100	78.24	5
30	50.21	5
10	28.86	5
1	-6.78	5
Pressure mm 25°C	8.0368	5
t_e	1128.	5
Density g/ml 20°C	1.93268	1
d_4^t 25	1.92344	1
30	1.91419	4
a	1.96962	4
b	-0.00184	4
Ref. Index n_D 20°C	1.52004	1
25	1.51737	1
50	1.50420	1
"C"	0.3532	4
MR (Obs.)	31.76	4
MR (Calc.)	31.584	5
(nD-d/2)	0.55370	4
Dielectric	4.369	1
A 50 to	6.89105	4
B 210 °C	1419.6	4
C	212.	5
A* 50 to	1.55314	5
B* 168 °C	1330.9	5
K		
c		
t_k to		
t_x °C		
A' 25 to		
B' 50 °C		
C'		
A'* to		
B'* °C		
Ac 210 to	7.3109	5
Bc t_c °C	1796.	5
Cc	265.	5
Cryos. consts. A°	0.02272	1
B°		
t_e °C	157.85	5

		Ref.
dt/dP °C/mm 25°C	2.167	5
BP	0.05044	5
t_e	0.0371	5
30 mm	0.7011	5
ΔHm cal/g	10.58	4
ΔHv cal/g 25°C	50.24	5
30 mm	48.94	5
BP	42.04	5
t_e	40.90	5
t_e (d, e)	40.85	5
ΔHv/T_e	19.16	5
d 50 to	52.72	5
e 158 °C	0.0752	5
d' to		5
e' °C		5
d_c g/ml	0.605	5
v_c ml/g	1.652	5
t_c °C	371.	5
P_c mm	30719.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9534	5
t_e	0.9409	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η 20 °C	0.8456	1
40	0.6462	1
60	0.5168	1
80	0.4267	1
B^v 10 to	498.5	4
A^v 90 °C	$\bar{2}.21874$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	34.14	1
30	32.95	1
40	31.80	1
Parachor [P] 20°C	252.5	4
30	252.7	4
40	252.9	4
Sugd.	253.0	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water	0.143	1
Water in	0.052	1

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 25

NAME	1,2,3-Tribromopropane		STRUCTURAL FORMULA $BrCH_2CHBrCH_2Br$
Mole % Pur. 99.94	Ref. 1	Molecular Formula $C_3H_5Br_3$	Molecular Weight 280.818

		Ref.
F.P. °C	16.19	1
F.P. 100%		
B.P. °C 760 mm	222.16	4
100	149.18	5
30	116.68	5
10	91.79	5
1	50.01	5
Pressure mm 25°C	0.1726	5
t_e	1336.5	5
Density g/ml 20°C	2.42086	1
d_4^t 25	2.41104	1
30	2.40122	4
a	2.46014	4
b	-0.00196	4
Ref. Index n_D 20°C	1.58621	1
25	1.58356	1
50	1.57120	1
"C"	0.3153	4
MR (Obs.)	38.941	4
MR (Calc.)	39.349	5
(nD-d/2)	0.3758	4
Dielectric	6.256	1
A 117 to	7.09534	4
B 322 °C	1779.2	4
C	200.	4
A* 117 to	1.84916	5
B* 257 °C	1681.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 322 to	7.5173	5
Bc t_c °C	2246.	5
Cc	264.	5
Cryos. consts. A°	0.02811	1
B°		
t_e °C	247.0	5

		Ref.
dt/dP °C/mm 25°C	74.77	5
BP	0.0572	4
t_e	0.03669	5
30 mm	0.8160	5
ΔHm cal/g	20.24	4
ΔHv cal/g 25°C	48.76	5
30 mm	43.94	5
BP	37.27	5
t_e	35.83	5
t_e (d, e)	35.70	5
$\Delta Hv/T_e$	19.34	5
d 117 to	51.31	5
e 247 °C	0.0632	5
d' to		
e' °C		
d_c g/ml	1.2887	5
v_c ml/g	0.776	5
t_c °C	550.	5
P_c mm	56554.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9400	5
t_e	0.9234	5
t_c	0.24	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η 20 °C	3.1764	1
40	1.8776	1
60	1.2651	1
80	0.9249	1
B^v 35 to	850.07	4
A^v 85 °C	$\bar{3}.55946$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	45.86	1
30	44.59	1
40	43.28	1
Parachor [P] 20°C	301.9	4
30	302.2	4
40	302.4	4
Sugd.	303.9	5
Exp. L.l.%/wt. u.		
Dispersion		
Flash Point °C	None	
Fire Point	None	
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 26

NAME	n-Butyl chloride 1-Chlorobutane	STRUCTURAL FORMULA $CH_3(CH_2)_3Cl$

Mole % Pur. 99.81	Ref. 1	Molecular Formula C_4H_9Cl	Molecular Weight 92.569

		Ref.
F.P. °C	-123.2	1
F.P. 100%		
B.P. °C		
760 mm	78.44	2
100	24.47	2
30	+0.67	2
10	-17.39	2
1	-47.18	5
Pressure		
mm 25°C	102.43	5
t_e	950.6	5
Density		
g/ml 20°C	0.88621	1
d_4^t 25	0.88080	1
30	0.87539	4
a	0.90790	4
b	-0.0_2106	4
Ref. Index		
n_D 20°C	1.40211	1
25	1.39953	1
30	1.39686	4
"C"	0.6048	4
MR (Obs.)	25.539	5
MR (Calc.)	25.440	4
(nD-d/2)	0.95901	4
Dielectric	7.39	3'
A 0 to	6.93790	2
B 123 °C	1227.43	2
C	224.10	2
A* 0 to	1.32214	5
B* 100 °C	1148.80	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 123 to	7.13392	5
Bc t_c °C	1410.8	5
Cc	255.0	5
Cryos. A°		
consts. B°		
t_e °C	85.87	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2143	5
BP	0.0426	5
t_e	0.0358	5
30 mm	0.5959	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.31	5
30 mm	90.03	5
BP	78.18	5
t_e	77.07	5
t_e (d, e)	76.95	5
$\Delta Hv/T_e$	19.84	5
d 0 to	90.13	5
e 80 °C	0.1523	5
d' to		
e' °C		
d_c g/ml	0.207	5
v_c ml/g	3.370	5
t_c °C	269.0	5
P_c mm	27641.	5
PV/RT		
25°C	0.9936	5
30 mm	1.0000	5
BP	0.9580	5
t_e	0.9517	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η 15 °C	0.5260	3
30	0.4626	3
B^v 5 to	324.9	4
A^v 40 °C	$\bar{2}.59365$	4
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.42	5
γ 30	21.32	5
40	20.25	5
Parachor [P]		
20°C		
30		
40		
Sugd.	227.4	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES: 3 Timmermans; 3' NBS

No. 1

NAME	Ethene (Ethylene)		STRUCTURAL FORMULA $CH_2=CH_2$
Mole % Pur.	Ref.	Molecular Formula C_2H_4	Molecular Weight 28.052

		Ref.
F. P. °C	-169.15≠	2
F. P. 100%		
B. P. °C		
760 mm	-103.71	2
100	-131.78	2
30	-144.00	2
10	-153.22	2
1	-168.30	5
Pressure mm 25°C		
t_e	429.3	5
Density g/ml -10°C	0.384	3'
d_4^t 0	0.345	3'
30		
a	0.433	4
b	-0.0013	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.) MR (Calc.) (nD-d/2)	10.969	5
Dielectric		
A -144to	6.74756	2
B - 61°C	585.	2
C	255.	2
A* -144to	0.81634	4
B* - 80°C	528.72	4
K	23.1	4
c	-0.21634	4
t_k -80 to	-70.0	4
t_x -40 °C	38.2	4
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac -61 to	7.3063	5
Bc t_c °C	1096.	5
Cc	397.	5
Cryos. A°	0.03725	2
consts. B°	0.0130	2
t_e °C	-112.83	5

		Ref.
dt/dP °C/mm 25°C		
BP	0.0224	2
t_e	0.03495	5
30 mm	0.3049	5
ΔHm cal/g		
ΔHv cal/g 25°C		
30 mm	129.08	5
BP	115.39	2
t_e	119.91	5
t_e (d, e)	118.53	5
ΔHv/T_e	20.97	5
d -144 to	80.15	5
e -115 °C	0.3398	5
d' to		
e' °C		
d_c g/ml	0.21	3'
v_c ml/g	4.76	3'
t_c °C	9.90	2
P_c mm	38380.	2
PV/RT 25°C		
30 mm	1.0000	5
BP	0.9681	5
t_e	0.9622	5
t_c	0.290	3'
ΔHc kcal/m	316.20	2
ΔHf		
ΔFf		
Viscosity centistokes		
η -125 °C	0.23	2
-115	0.20	2
-105	0.16	2
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.37252	2
400	0.45986	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0698	4
n	600 °K	0.0011	4
o		-0.0_634	4
m'	700 to	0.1300	4
n'	1000 °K	0.0010	4
o'		-0.0_632	4
Surface tension dynes/cm. 20°C			
γ 30			
40			
Parachor [P] 20°C			
30			
40			
Sugd.		101.2	5
Exp. L.1.%/wt. u. Dispersion			
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.75\ T_c$ ≠ at saturation pressure (triple point) + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 Comm. Leiden 7° 189 a, b, c (Timmermans) Mathias et al; 3' Lange

No. 2

NAME	Propene (Propylene)		STRUCTURAL FORMULA $CH_3CH{=}CH_2$
Mole % Pur.	Ref.	Molecular Formula C_3H_6	Molecular Weight 42.078

		Ref.
F.P. °C	-185.25#	2
F.P. 100%		
B.P. °C		
760 mm	-47.70	2
100	-84.12	2
30	-100.06	2
10	-112.11	2
1	-131.89	5
Pressure mm 25°C	8582.	5
t_e	593.97	5
Density g/ml 20°C	0.5139≠	2
d_4^t 25	0.5053≠	2
30		
a	0.5585	4
b	-0.00123	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	15.587	5
(nD-d/2)		
Dielectric		
A -100 to	6.81960	2
B -0.6 °C	785.	2
C	247.	2
A* -100 to	1.03651	5
B* -43 °C	729.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac -0.6 to	7.2658	5
Bc t_c °C	1020.	5
Cc	282.	5
Cryos. consts. A°	0.04673	2
B°	0.0054	2
t_e °C	-52.97	5

		Ref.
dt/dP °C/mm		
25°C		
BP	0.0289	2
t_e	0.0351	5
30 mm	0.3982	5
ΔHm cal/g		
ΔHv cal/g		
25°C	140.78	5
30 mm	118.24	5
BP	104.62	2
t_e	106.03	5
t_e (d, e)	105.99	5
$\Delta Hv/T_e$	20.31	5
d -100 to	92.22	5
e -53 °C	0.2600	5
d' to		
e' °C		
d_c g/ml	0.233	2
v_c ml/g	4.302	2
t_c °C	91.9	2
P_c mm	34504.	2
PV/RT		
25°C		
30 mm	1.0000	5
BP	0.9632	5
t_e	0.9694	5
t_c	0.274	2
ΔHc kcal/m	460.43	2
ΔHf		
ΔFf		
Viscosity centistokes		
η -115 °C	0.48	2
-105	0.40	2
- 95	0.35	2
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap 300 °K	0.36456	2
400	0.45392	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0622	4
n 600 °K	0.0011	4
o	$-0.0_6 29$	4
m' 700 to	0.0970	4
n' 1000 °K	0.0011	4
o'	$-0.0_6 34$	4
Surface tension dynes/cm. 20°C		
γ 30		
40		
Parachor [P] 20°C		
30		
40		
Sugd.	140.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

≠ at saturation pressure

# at saturation pressure (triple point)

No. 3

NAME	1-Butene (Butylene)		STRUCTURAL FORMULA $CH_3CH_2CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula C_4H_8	Molecular Weight 56.104

			Ref.
F.P. °C		-185.35#	2
F.P. 100%			
B.P. °C			
760 mm		-6.26	2
100		-48.77	2
30		-67.41	2
10		-81.5	2
1		-104.7	5
Pressure mm 25°C		2217.	5
t_e		703.	5
Density g/ml 20°C		0.5951≠	2
d_4^t 25		0.5888≠	2
30			
a		0.6227	4
b		-0.0011	4
Ref. Index n_D 20°C			
25			
30			
"C"			
MR (Obs.)			
MR (Calc.)		20.205	5
(nD-d/2)			
Dielectric			
A	-67 to	6.84290	2
B	40 °C	926.1	2
C		240.	2
A*	-67 to	1.13369	5
B*	2 °C	865.72	5
K			
c			
t_k	to		
t_x	°C		
A'	to		
B'	°C		
C'			
A'*	to		
B'*	°C		
Ac	40 to	7.2793	5
Bc	t_c °C	1186.	5
Cc		277.	5
Cryos. consts. A°		0.06002	2
B°		0.0045	2
t_e °C		-8.229	5

			Ref.
dt/dP °C/mm			
25°C		0.01483	5
BP		0.0337	2
t_e		0.0358	5
30 mm		0.4656	5
ΔHm cal/g			
ΔHv cal/g			
25°C		86.8	2
30 mm		107.38	5
BP		93.36	2
t_e		93.80	5
t_e (d, e)		93.81	5
ΔHv/T_e		19.86	5
d	-67 to	91.92	5
e	-9 °C	0.2293	5
d'	to		
e'	°C		
d_c g/ml		0.233	2
v_c ml/g		4.296	2
t_c °C		146.	2
P_c mm		30172.	2
PV/RT			
25°C		0.9177	5
30 mm		1.0000	5
BP		0.9518	5
t_e		0.9540	5
t_c		0.277	2
ΔHc kcal/m		607.37	2
ΔHf			
ΔFf			
Viscosity centistokes			
η	-55 °C	0.32	2
	-45	0.28	2
	-35	0.25	2
B^v	to		
A^v	°C		
(B^v)	to		
(A^v)	°C		
c_p liq.	°K		
c_p vap.	300°K	0.36664	2
	400	0.46414	2
c_v vap.			

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0121	4
n	600 °K	0.0013	4
o		-0.0_652	4
m'	700 to	0.1051	4
n'	1000 °K	0.0011	4
o'		-0.0_636	4
Surface tension dynes/cm. γ	20°C	12.50	5
	30	11.29	5
	40	10.11	5
Parachor [P]	20°C		
	30		
	40		
	Sugd.	179.2	5
Exp. L. l. %/wt.			
u.			
Dispersion			
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

≠ at saturation pressure

# at saturation pressure (triple point)

No. 4

NAME	cis-2-Butene	STRUCTURAL FORMULA	$CH_3CH{=}CHCH_3$
Mole % Pur.	Ref.	Molecular Formula C_4H_8	Molecular Weight 56.104

		Ref.
F.P. °C	-138.910	2
F.P. 100%		
B.P. °C 760 mm	3.720	2
100	-39.824	2
30	-58.94	2
10	-73.42	2
1	-97.2	5
Pressure mm 25°C	1604.0	5
t_e	741.2	5
Density g/ml 20°C	0.6213≠	2
d_4^t 25	0.6154≠	2
30	0.6094	4
a	0.6464	4
b	-0.0010	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.) (nD-d/2)	20.205	5
Dielectric		
A -59 to	6.86926	2
B 541 °C	960.1	2
C	237.	2
A* -59 to	1.1261	5
B* 13 °C	894.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 541 to	7.3023	5
Bc t_c °C	1229.	5
Cc	275.	5
Cryos. consts. A°	0.04877	2
B°	0.0052	2
t_e °C	3.07	5

		Ref.
dt/dP °C/mm 25°C	0.0194	5
BP	0.0345	2
t_e	0.0352	5
30 mm	0.4780	5
ΔHm cal/g		
ΔHv cal/g 25°C	94.5	2
30 mm	113.38	5
BP	99.46	2
t_e	99.61	5
t_e (d, e)	99.61	5
$\Delta Hv/T_e$	20.23	5
d -59 to	100.29	5
e 3 °C	0.2221	5
d' to		
e' °C		
d_c g/ml	0.238	2
v_c ml/g	4.206	2
t_c °C	155.	2
P_c mm	31160.	2
PV/RT 25°C	0.8766	4
30 mm	1.0000	5
BP	0.9637	4
t_e	0.9643	5
t_c	0.276	2
ΔHc kcal/m	605.73	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap 300 °K	0.33794	2
400	0.43366	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0176	4
n	600 °K	0.0012	4
o		$-0.0_{6}28$	4
m'	700 to	0.0424	4
n'	1000 °K	0.0012	4
o'		$-0.0_{6}39$	4
Surface tension dynes/cm. γ	20°C	15.07	5
	30	13.80	5
	40	12.55	5
Parachor [P]	20°C		
	30		
	40		
	Sugd.	179.2	5
Exp. L.l.%/wt. u. Dispersion			
Flash Point °C Fire Point			
M Spec. Ultra V. X-Ray Dif. Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.75\, T_c$ ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 5

NAME	trans-2-Butene			STRUCTURAL FORMULA $CH_3CH{=}CHCH_3$
Mole % Pur.	Ref.	Molecular Formula C_4H_8	Molecular Weight 56.104	

		Ref.
F.P. °C	-105.550	2
F.P. 100%		
B.P. °C		
760 mm	0.88	2
100	-42.69	2
30	-61.82	2
10	-76.3	2
1	-100.1	5
Pressure mm 25°C	1753.	4
t_e	729.7	5
Density g/ml 20°C	0.6042≠	2
d^t_4 25	0.5984≠	2
30	0.5925	4
a	0.6291	4
b	-0.0010	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.) MR (Calc.) (nD-d/2)	20.205	5
Dielectric		
A -62 to 49 °C	6.86952	2
B	960.8	2
C	240.	2
A* -62 to 10 °C	1.13404	5
B*	895.9	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 49 to t_c °C	7.3082	5
Bc	1231.	5
Cc	278.	5
Cryos. consts. A°	0.04177	2
B°	0.0058	2
t_e °C	-0.183	5

		Ref.
dt/dP °C/mm		
25°C	0.0181	4
BP	0.0345	2
t_e	0.0356	5
30 mm	0.4783	5
ΔHm cal/g		
ΔHv cal/g		
25°C	91.8	2
30 mm	110.28	5
BP	96.94	2
t_e	97.17	5
t_e (d, e)	97.17	5
ΔHv/T_e	19.97	5
d -62.0 to -0.2 °C	97.13	5
e	0.2128	5
d' to °C		
e'		
d_c g/ml	0.238	2
v_c ml/g	4.206	2
t_c °C	155.	2
P_c mm	31160.	2
PV/RT		
25°C	0.9333	4
30 mm	1.0000	5
BP	0.9595	4
t_e	0.9606	5
t_c	0.276	2
ΔHc kcal/m	604.73	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.37573	2
400	0.46378	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0816	4
n	0.0011	4
o	-0.0_625	4
m' 700 to 1000 °K	0.0851	4
n'	0.0011	4
o'	-0.0_637	4
Surface tension dynes/cm. γ 20°C	13.43	5
30	12.27	5
40	11.13	5
Parachor [P] 20°C		
30		
40		
Sugd.	179.2	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

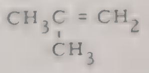
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 6

NAME	2-Methylpropene Isobutene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_4H_8	Molecular Weight 56.104



$$CH_3\underset{\displaystyle CH_3}{\underset{|}{C}} = CH_2$$

		Ref.
F.P. °C	-140.350	2
F.P. 100%		
B.P. °C		
760 mm	-6.900	2
100	-49.309	2
30	-67.90	2
10	-81.95	2
1	-105.06	5
Pressure		
mm 25°C	2278.	4
t_e	710.1	5
Density		
g/ml 20°C	0.5942≠	2
d_4^t 25	0.5879≠	2
30	0.5815	4
a	0.6219	4
b	-0.0011	4
Ref. Index		
n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	20.205	5
(nD-d/2)		
Dielectric		
A -68 to	6.84134	2
B 39 °C	923.2	2
C	240.	2
A* -68 to	1.12232	5
B* 1 °C	861.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 39 to	7.2777	5
Bc t_c °C	1183.	5
Cc	277.	5
Cryos. A°	0.04044	2
consts. B°	0.005	2
t_e °C	-8.623	4

		Ref.
dt/dP		
°C/mm		
25°C	0.0145	4
BP	0.0336	2
t_e	0.0355	4
30 mm	0.4645	5
ΔHm cal/g		
ΔHv cal/g		
25°C	87.7	2
30 mm	107.14	5
BP	94.22	2
t_e	94.59	4
t_e (d, e)	94.59	4
ΔHv/T_e	20.06	5
d -68 to	92.76	5
e -9 °C	0.2119	5
d' to		
e' °C		
d_c g/ml	0.234	2
v_c ml/g	4.278	2
t_c °C	144.73	2
P_c mm	29982.	2
PV/RT		
25°C	0.9314	4
30 mm	1.0000	5
BP	0.9629	4
t_e	0.9646	5
t_c	0.276	2
ΔHc kcal/m	603.36	2
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.38126	2
400	0.47358	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0498	4
n 600 °K	0.0012	4
o	$-0.0_{6}45$	4
m' 700 to	0.1217	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}34$	4
Surface tension		
dynes/cm. 20°C	12.42	5
γ 30	11.22	5
40	10.04	5
Parachor [P]		
20°C		
30		
40		
Sugd.	179.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 7

NAME	1-Pentene
Mole % Pur.	
Ref.	
Molecular Formula	C_5H_{10}
Molecular Weight	70.130
STRUCTURAL FORMULA	$CH_3(CH_2)_2CH=CH_2$

			Ref.
F. P. °C		-165.220	2
F. P. 100%			
B. P. °C			
760 mm		29.968	2
100		-17.92	2
30		-38.91	2
10		-54.8	2
1		-80.9	5
Pressure			
mm 25°C		648.8	4
t_e		813.4	5
Density			
g/ml 20°C		0.64050	2
d_4^t 25		0.63533	2
30		0.63012	4
a		0.66168	4
b		-0.0_3954	4
Ref. Index			
n_D 20°C		1.37148	2
25		1.36835	2
30		1.36512	4
"C"		0.7764	4
MR (Obs.)		24.854	2
MR (Calc.)		24.36	5
(nD-d/2)		1.05123	2
Dielectric			
A	-39 to	6.84650	2
B	73 °C	1044.9	2
C		234.	2
A*	-39 to	1.16738	5
B*	42 °C	974.8	5
K			
c			
t_k	to		
t_x	°C		
A'	to		
B'	°C		
C'			
A'*	to		
B'*	°C		
Ac	73 to	7.2751	5
Bc	t_c °C	1324.	5
Cc		272.	5
Cryos. A°		0.05995	2
consts. B°		0.0048	2
t_e °C		31.94	5

			Ref.
dt/dP			
°C/mm			
25°C		0.04297	5
BP		0.03797	5
t_e		0.0360	5
30 mm		0.5247	5
ΔHm cal/g			
ΔHv cal/g			
25°C		86.93	5
30 mm		98.81	5
BP		86.24	5
t_e		85.88	5
t_e (d, e)		85.88	5
ΔHv/T_e		19.74	5
d	-39 to	91.71	5
e	32 °C	0.1825	5
d'	to		
e'	°C		
d_c g/ml		0.227	5
v_c ml/g		4.409	5
t_c °C		188.	5
P_c mm		25113.	5
PV/RT			
25°C		0.9657	5
30 mm		1.0000	5
BP		0.9600	5
t_e		0.9581	5
t_c		0.270	5
ΔHc kcal/m		754.25	2
ΔHf			
ΔFf			
Viscosity centistokes			
η -20 °C		0.30	2
-10		0.27	2
0		0.24	2
B^v	to		
A^v	°C		
(B^v)	to		
(A^v)	°C		
c_p liq.	°K		
c_p vap. 300°K		0.37516	2
400		0.47198	2
c_v vap.			

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0283	4
n	600 °K	0.0013	4
o		-0.0_647	4
m'	700 to	0.1035	4
n'	1000 °K	0.0011	4
o'		-0.0_637	4
Surface tension			
dynes/cm. 20°C		15.57	5
γ 30		14.50	5
40		13.45	5
Parachor [P]			
20°C			
30			
40			
Sugd.		218.2	5
Exp. L. l. %/wt.			
u.			
Dispersion		126.1	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 8

NAME	cis-2-Pentene					STRUCTURAL FORMULA
						$CH_3CH_2CH=CHCH_3$
Mole % Pur.		Ref.		Molecular Formula	C_5H_{10}	Molecular Weight 70.130

		Ref.
F.P. °C	-151.390	2
F.P. 100%		
B.P. °C		
760 mm	36.942	2
100	-11.42	2
30	-32.66	2
10	-48.7	2
1	-75.2	5
Pressure		
mm 25°C	494.6	5
t_e	829.6	5
Density		
g/ml 20°C	0.6556	2
d_4^t 25	0.6504	2
30	0.6452	4
a	0.6767	4
b	-0.0_398	4
Ref. Index		
n_D 20°C	1.3830	2
25	1.3798	2
30	1.3766	4
"C"	0.7808	4
MR (Obs.)	24.95	2
MR (Calc.)	24.36	5
(nD-d/2)	1.0552	2
Dielectric		
A -33 to	6.87274	2
B 82 °C	1068.0	2
C	231.	2
A* -33 to	1.20088	5
B* 50 °C	1002.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 82 to	7.2973	5
Bc t_c °C	1350.	5
Cc	270.	5
Cryos. A°	0.05768	2
consts. B°	0.0048	2
t_e °C	39.52	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0537	5
BP	0.03830	2
t_e	0.0358	5
30 mm	0.5310	5
ΔHm cal/g		
ΔHv cal/g		
25°C	91.48	5
30 mm	102.91	5
BP	89.12	5
t_e	88.62	5
t_e (d, e)	88.61	5
$\Delta Hv/T_e$	19.87	5
d -33 to	96.44	5
e 40 °C	0.1982	5
d' to		
e' °C		
d_c g/ml	0.232	5
v_c ml/g	4.303	5
t_c °C	210.	5
P_c mm	26762.	5
PV/RT		
25°C	0.9671	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9535	5
t_c	0.268	5
ΔHc kcal/m	752.74	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300 °K	0.34864	2
400	0.45016	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0106	4
n 600 °K	0.0013	4
o	-0.0_646	4
m' 700 to	0.0568	4
n' 1000 °K	0.0012	4
o'	-0.0_641	4
Surface tension		
dynes/cm. 20°C	17.14	5
γ 30	16.01	5
40	14.89	5
Parachor [P]		
20°C		
30		
40		
Sugd.	218.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	130.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 9

NAME	trans-2-Pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_5H_{10}	Molecular Weight 70.130
			$CH_3CH_2CH=CHCH_3$

		Ref.
F.P. °C	-140.244	2
F.P. 100%		
B.P. °C		
760 mm	36.353	2
100	-12.00	2
30	-33.28	2
10	-49.4	2
1	-76.0	5
Pressure		
mm 25°C	505.5	5
t_e	828.0	5
Density		
g/ml 20°C	0.6482	2
d_4^t 25	0.6431	2
30	0.6379	4
a	0.6690	4
b	-0.0_396	4
Ref. Index		
n_D 20°C	1.3793	2
25	1.3761	2
30	1.3729	4
"C"	0.7825	4
MR (Obs.)	25.02	2
MR (Calc.)	24.36	5
(nD-d/2)	1.0552	2
Dielectric		
A -33 to	6.90575	2
B 81 °C	1084.0	2
C	233.	2
A* -33 to	1.22421	5
B* 49 °C	1013.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 81 to	7.3347	5
Bc t_c °C	1370.	5
Cc	272.	5
Cryos. A°	0.05685	2
consts. B°	0.0052	2
t_e °C	38.86	5

		Ref.
dt/dP °C/mm		
25°C	0.0527	5
BP	0.03824	2
t_e	0.0358	5
30 mm	0.5325	5
ΔHm cal/g		
ΔHv cal/g		
25°C	91.02	5
30 mm	102.10	5
BP	88.92	5
t_e	88.44	5
t_e (d, e)	88.44	5
ΔHv/T_e	19.88	5
d -33 to	95.80	5
e 39 °C	0.1893	5
d' to		
e' °C		
d_c g/ml	0.237	4
v_c ml/g	4.216	4
t_c °C	199.	5
P_c mm	26693.	5
PV/RT		
25°C	0.9653	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9536	5
t_c	0.268	5
ΔHc kcal/m	751.66	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37131	2
400	0.46585	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0406	4
n	600 °K	0.0012	4
o		-0.0_639	4
m'	700 to	0.0980	4
n'	1000 °K	0.0011	4
o'		-0.0_636	4
Surface tension dynes/cm. 20°C		16.38	5
γ 30		15.29	5
40		14.23	5
Parachor [P] 20°C			
30			
40			
Sugd.		218.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		132.	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

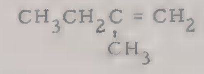
PURIFICATION: API

LITERATURE REFERENCES:

No. 10

NAME	2-Methyl-1-butene
Mole % Pur.	Ref.
Molecular Formula	C_5H_{10}
Molecular Weight	70.130

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{C}=CH_2$

		Ref.
F.P. °C	-137.560	2
F.P. 100%		
B.P. °C		
760 mm	31.163	2
100	-16.54	2
30	-37.50	2
10	-53.4	2
1	-79.5	5
Pressure		
mm 25°C	610.0	4
t_e	813.	5
Density		
g/ml 20°C	0.6504	2
d_4^t 25	0.6451	2
30	0.6397	4
a	0.6721	4
b	$-0.0_{3}98$	4
Ref. Index		
n_D 20°C	1.3778	2
25	1.3746	2
30	1.3713	4
"C"	0.7769	4
MR (Obs.)	24.85	2
MR (Calc.)	24.36	5
(nD-d/2)	1.0526	2
Dielectric		
A -38 to	6.87314	2
B 75 °C	1053.8	2
C	233.	2
A* -38 to	1.20404	5
B* 43 °C	986.94	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 75 to	7.3005	5
Bc t_c °C	1334.	5
Cc	271.	5
Cryos. A°	0.05167	2
consts. B°	0.0043	2
t_e °C	33.12	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0449	5
BP	0.03778	2
t_e	0.0358	5
30 mm	0.5239	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.15	5
30 mm	100.15	5
BP	86.99	5
t_e	86.62	5
t_e (d, e)	86.62	5
ΔHv/T_e	19.83	5
d -38 to	92.97	5
e 33 °C	0.1917	5
d' to		
e' °C		
d_c g/ml	0.237	5
v_c ml/g	4.224	5
t_c °C	191.	5
P_c mm	26188.	5
PV/RT		
25°C	0.9618	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9541	5
t_c	0.268	5
ΔHc kcal/m	750.57	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.38243	2
400	0.48068	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0201	4
n 600 °K	0.0014	4
o	$-0.0_{6}56$	4
m' 700 to	0.1147	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}37$	4
Surface tension		
dynes/cm. 20°C	16.56	5
γ 30	15.42	5
40	14.30	5
Parachor [P]		
20°C		
30		
40		
Sugd.	218.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	133.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

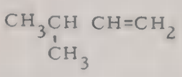
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 11

NAME	3-Methyl-1-butene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_5H_{10}	Molecular Weight 70.130	


$CH_3\underset{CH_3}{CH}\ CH{=}CH_2$

		Ref.
F.P. °C	-168.495	2
F.P. 100%		
B.P. °C		
760 mm	20.061	2
100	-26.82	2
30	-47.3	2
10	-62.9	2
1	-88.3	5
Pressure mm 25°C	902.	5
t_e	784.	5
Density g/ml 20°C	0.6272≠	2
d_4^t 25	0.6219≠	2
30	0.6168≠	4
a	0.6490	4
b	-0.00094	4
Ref. Index n_D 20°C	1.3643≠	2
25	1.3611≠	2
30	1.3587≠	4
"C"	0.7784	4
MR (Obs.)	24.94	2
MR (Calc.)	24.36	5
(nD-d/2)	1.0507	2
Dielectric		
A -47 to 60 °C	6.82618	2
B	1013.474	2
C	237.	2
A* -47 to 31 °C	1.16759	5
B*	946.98	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 60 to	7.2588	5
Bc t_c °C	1286.	5
Cc	274.	5
Cryos. consts. A°	0.05888	2
B°	0.0047	2
t_e °C	20.93	5

		Ref.
dt/dP °C/mm		
25°C	0.0326	5
BP	0.03721	2
t_e	0.0363	5
30 mm	0.5128	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.51	5
30 mm	93.96	5
BP	82.20	5
t_e	81.96	5
t_e (d, e)	82.05	5
ΔHv/T_e	19.54	5
d -47 to 21 °C	85.70	5
e	0.1744	5
d' to °C		
e'		
d_c g/ml	0.219	5
v_c ml/g	4.568	5
t_c °C	170.	5
P_c mm	23294.	5
PV/RT		
25°C	0.9518	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9576	5
t_c	0.270	5
ΔHc kcal/m	752.33	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.40596	2
400	0.50278	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0231	4
n 600 °K	0.0015	4
o	-0.0_677	4
m' 700 to	0.1380	4
n' 1000 °K	0.0011	4
o'	-0.0_637	4
Surface tension dynes/cm. γ 20°C	15.57	5
30	14.50	5
40	13.45	5
Parachor [P] 20°C		
30		
40		
Sugd.	218.2	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c ≠at saturation pressure +grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

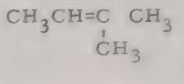
PURIFICATION: API

LITERATURE REFERENCES:

No. 12

NAME	2-Methyl-2-butene		
Mole % Pur.	Ref.	Molecular Formula C_5H_{10}	Molecular Weight 70.130

STRUCTURAL FORMULA



$CH_3CH{=}C(CH_3)CH_3$

		Ref.
F.P. °C	-133.768	2
F.P. 100%		
B.P. °C		
760 mm	38.568	2
100	-10.06	2
30	-31.48	2
10	-47.7	2
1	-74.5	5
Pressure		
mm 25°C	466.1	5
t_e	834.3	5
Density		
g/ml 20°C	0.6623	2
d_4^t 25	0.6570	2
30	0.6517	4
a	0.6838	4
b	-0.0_210	4
Ref. Index		
n_D 20°C	1.3874	2
25	1.3842	2
30	1.3809	4
"C"	0.7813	4
MR (Obs.)	24.95	2
MR (Calc.)	24.36	5
(nD-d/2)	1.0563	2
Dielectric		
A -31 to	6.91562	2
B 85 °C	1095.088	2
C	233.	2
A* -31 to	1.24011	5
B* 51 °C	1026.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 85 to	7.3453	5
Bc t_c °C	1385.	5
Cc	272.	5
Cryos. A°	0.04703	2
consts. B°	0.0048	2
t_e °C	41.32	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0566	5
BP	0.03844	2
t_e	0.0357	5
30 mm	0.5360	5
ΔHm cal/g		
ΔHv cal/g		
25°C	91.86	5
30 mm	102.96	5
BP	89.73	5
t_e	89.21	5
t_e (d, e)	89.21	5
ΔHv/T_e	19.89	5
d -31 to	97.01	5
e 41 °C	0.1889	5
d' to		
e' °C		
d_c g/ml	0.242	5
v_c ml/g	4.128	5
t_c °C	204.	5
P_c mm	27547.	5
PV/RT		
25°C	0.9645	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9534	5
t_c	0.268	5
ΔHc kcal/m	749.08	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.35962	2
400	0.45530	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0238	4
n 600 °K	0.0012	4
o	-0.0_641	4
m' 700 to	0.0692	4
n' 1000 °K	0.0011	4
o'	-0.0_639	4
Surface tension		
dynes/cm. 20°C	17.87	5
γ 30	16.68	5
40	15.51	5
Parachor [P]		
20°C		
30		
40		
Sugd.	218.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	135.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 13

NAME	1-Hexene				STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156	$CH_3(CH_2)_3CH{=}CH_2$

		Ref.
F.P. °C	-139.819	2
F.P. 100%		
B.P. °C		
760 mm	63.485	2
100	11.109	2
30	-11.88	2
10	-29.3	2
1	-57.9	5
Pressure		
mm 25°C	187.2	5
t_e	905.	5
Density		
g/ml 20°C	0.67317	2
d_4^t 25	0.66848	2
30	0.66377	4
a	0.69199	4
b	-0.0_3906	4
Ref. Index		
n_D 20°C	1.38788	2
25	1.38502	2
30	1.38219	4
"C"	0.7696	4
MR (Obs.)	29.492	2
MR (Calc.)	28.978	5
(nD-d/2)	1.05130	2
Dielectric		
A -12 to	6.86572	2
B 103 °C	1152.971	2
C	226.	2
A* -12 to	1.23301	5
B* 79 °C	1079.	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 103 to	7.2845	5
Bc t_c °C	1445.	5
Cc	265.	5
Cryos. A°		
consts. B°		
t_e °C	69.08	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1267	5
BP	0.04149	2
t_e	0.0362	5
30 mm	0.5748	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.33	5
30 mm	93.50	5
BP	80.66	5
t_e	79.72	5
t_e (d, e)	79.70	5
ΔHv/T_e	19.60	5
d -12 to	91.48	5
e 69 °C	0.1705	5
d' to		
e' °C		
d_c g/ml	0.230	5
v_c ml/g	4.342	5
t_c °C	228.	5
P_c mm	22668.	5
PV/RT		
25°C	0.9857	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9499	5
t_c	0.265	5
ΔHc kcal/m	901.14	2
ΔHf		
ΔFf		
Viscosity centistokes		
η -10°C	0.37	2
20	0.26	2
40	0.22	2
60	0.19	2
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37763	2
400	0.47566	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0258	4
n 600 °K	0.0013	4
o	-0.0_648	4
m' 700 to	0.1031	4
n' 1000 °K	0.0011	4
o'	-0.0_638	4
Surface tension		
dynes/cm. 20°C	17.87	5
γ 30	16.86	5
40	15.86	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L.1.%/wt.		
u.		
Dispersion	121.9	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 14

NAME	cis-2-Hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156
			$CH_3(CH_2)_2CH=CHCH_3$

		Ref.
F.P. °C	-141.135	2
F.P. 100%		
B.P. °C		
760 mm	68.84	2
100	15.85	4
30	-7.46	4
10	-25.13	5
1	-54.23	5
Pressure		
mm 25°C	151.	5
t_e	919.	5
Density g/ml 20°C	0.6869	2
d_4^t 25	0.6823	2
30	0.6777	4
a	0.7053	4
b	-0.0_389	4
Ref. Index n_D 20°C	1.3977	2
25	1.3948	2
30	1.3920	4
"C"	0.7722	4
MR (Obs.)	29.55	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0542	2
Dielectric		
A -7 to	6.89962	5
B 110 °C	1184.6	5
C	226.	5
A* -7 to	1.26086	5
B* 85 °C	1109.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 110 to	7.32029	5
Bc t_c °C	1484.	5
Cc	266.	5
Cryos. consts. A°		
B°		
t_e °C	75.01	5

		Ref.
dt/dP °C/mm		
25°C	0.1530	5
BP	0.041	2
t_e	0.0361	5
30 mm	0.5832	5
ΔHm cal/g		
ΔHv cal/g		
25°C	89.40	5
30 mm	95.30	5
BP	82.33	5
t_e	81.31	5
t_e (d, e)	81.28	5
$\Delta Hv/T_e$	19.65	5
d -7 to	94.03	5
e 75 °C	0.1700	5
d' to		
e' °C		
d_c g/ml	0.238	5
v_c ml/g	4.202	5
t_c °C	238.	5
P_c mm	23801.	5
PV/RT		
25°C	0.9847	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9485	5
t_c	0.264	5
ΔHc kcal/m	899.54	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.35874	2
400	0.45867	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0155	4
n 600 °K	0.0013	4
o	-0.0_636	4
m' 700 to	0.0978	4
n' 1000 °K	0.0011	4
o'	-0.0_636	4
Surface tension dynes/cm. γ 20°C	19.39	5
30	18.34	5
40	17.31	5
Parachor [P] 20°C		
30		
40		
Sugd.	257.3	5
Exp. L. 1. %/wt. u.		
Dispersion	125.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 15

NAME	trans-2-Hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156	$CH_3(CH_2)_2CH{=}CH\ CH_3$

		Ref.
F.P. °C	-132.970	2
F.P. 100%		
B.P. °C		
760 mm	67.87	2
100	15.01	4
30	-8.25	4
10	-25.87	5
1	-54.90	5
Pressure mm 25°C	157.	5
t_e	916.	5
Density g/ml 20°C	0.6784	2
d_4^t 25	0.6738	2
30	0.6692	4
a	0.6968	4
b	-0.0_389	4
Ref. Index		
n_D 20°C	1.3935	2
25	1.3907	2
30	1.3879	4
"C"	0.7741	4
MR (Obs.)	29.64	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0543	2
Dielectric		
A -8 to	6.89830	5
B 108 °C	1181.0	5
C	226.	5
A* -8 to	1.26070	5
B* 84 °C	1106.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 108 to	7.3188	5
Bc t_c °C	1479.	5
Cc	266.	5
Cryos. A°		
consts. B°		
t_e °C	73.93	5

		Ref.
dt/dP °C/mm		
25°C	0.1480	5
BP	0.041	2
t_e	0.0361	5
30 mm	0.5818	5
ΔHm cal/g		
ΔHv cal/g		
25°C	89.70	5
30 mm	94.98	5
BP	82.05	5
t_e	81.04	5
t_e (d, e)	81.02	5
ΔHv/T_e	19.65	5
d -8 to	93.58	5
e 74 °C	0.1698	5
d' to		
e' °C		
d_c g/ml	0.235	5
v_c ml/g	4.257	5
t_c °C	236.	5
P_c mm	23399.	5
PV/RT		
25°C	0.9937	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9485	5
t_c	0.264	5
ΔHc kcal/m	898.54	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37763	2
400	0.47174	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0582	4
n	600 °K	0.0012	4
o		-0.0_631	4
m'	700 to	0.0760	4
n'	1000 °K	0.0012	4
o'		-0.0_642	4
Surface tension dynes/cm. γ 20°C		18.44	5
30		17.43	5
40		16.45	5
Parachor [P] 20°C			
30			
40			
Sugd.		257.3	5
Exp. L.1.%/wt. u.			
Dispersion		127.	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 16

NAME	cis-3-Hexene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156	$CH_3CH_2CH{=}CHCH_2CH_3$

		Ref.
F.P. °C	-137.820	2
F.P. 100%		
B.P. °C		
760 mm	66.44	2
100	13.75	4
30	-9.43	4
10	-26.98	5
1	-55.90	5
Pressure		
mm 25°C	166.	5
t_e	912.	5
Density		
g/ml 20°C	0.6796	2
d_4^t 25	0.6749	2
30	0.6702	4
a	0.6984	4
b	-0.0_391	4
Ref. Index		
n_D 20°C	1.3947	2
25	1.3920	2
30	1.3889	4
"C"	0.7749	4
MR (Obs.)	29.67	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0549	2
Dielectric		
A -94 to	6.89493	5
B 107 °C	1175.4	5
C	226.	5
A* -94 to	1.25194	5
B* 82 °C	1097.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 107 to	7.3156	5
Bc t_c °C	1472.	5
Cc	266.	5
Cryos. A°		
consts. B°		
t_e °C	72.33	5

$T_R = 0.75\ T_c$

		Ref.
dt/dP		
°C/mm		
25°C	0.1410	5
BP	0.041	2
t_e	0.0361	5
30 mm	0.5797	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.52	5
30 mm	94.47	5
BP	81.62	5
t_e	80.64	5
t_e (d, e)	80.62	5
ΔHv/T_e	19.64	5
d -94 to	92.87	5
e 72 °C	0.1694	5
d' to		
e' °C		
d_c g/ml	0.236	5
v_c ml/g	4.245	5
t_c °C	233.	5
P_c mm	23329.	5
PV/RT		
25°C	0.9879	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9487	5
t_c	0.264	5
ΔHc kcal/m	899.54	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.35303	2
400	0.45748	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0237	4
n 600°K	0.0014	4
o	-0.0_653	4
m' 700 to	0.0653	4
n' 1000°K	0.0012	4
o'	-0.0_642	4
Surface tension		
dynes/cm. 20°C	18.57	5
γ 30	17.53	5
40	16.52	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L.l.%/wt.		
u.		
Dispersion	126.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 17

NAME	trans-3-Hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156
			$CH_3CH_2CH{=}CH\,CH_2CH_3$

		Ref.
F.P. °C	-113.430	2
F.P. 100%		
B.P. °C		
760 mm	67.08	2
100	14.30	4
30	-8.91	4
10	-26.50	5
1	-55.47	5
Pressure		
mm 25°C	162.	5
t_e	914.	5
Density		
g/ml 20°C	0.6772	2
d_4^t 25	0.6725	2
30	0.6678	4
a	0.6961	4
b	-0.0_391	4
Ref. Index		
n_D 20°C	1.3943	2
25	1.3916	2
30	1.3886	4
"C"	0.7770	4
MR (Obs.)	29.75	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0557	2
Dielectric		
A -9 to	6.89575	5
B 107 °C	1177.7	5
C	226.	5
A* -9 to	1.25454	5
B* 83 °C	1100.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 107 to	7.3162	5
Bc t_c °C	1475.	5
Cc	266.	5
Cryos. A°		
consts. B°		
t_e °C	73.05	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1441	5
BP	0.041	2
t_e	0.0361	5
30 mm	0.5807	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.86	5
30 mm	94.68	5
BP	81.80	5
t_e	80.81	5
t_e (d, e)	80.78	5
ΔHv/T_e	19.64	5
d -9 to	93.17	5
e 73 °C	0.1696	5
d' to		
e' °C		
d_c g/ml	0.234	5
v_c ml/g	4.270	5
t_c °C	234.	5
P_c mm	23237.	5
PV/RT		
25°C	0.9888	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9486	5
t_c	0.264	5
ΔHc kcal/m	898.54	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37906	2
400	0.47768	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0191	4
n 600 °K	0.0014	4
o	-0.0_653	4
m' 700 to	0.0469	4
n' 1000 °K	0.0013	4
o'	-0.0_647	4
Surface tension		
dynes/cm. 20°C	18.31	5
γ 30	17.28	5
40	16.27	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L.l.%/wt.		
u.		
Dispersion	128.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

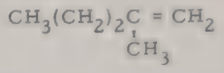
PURIFICATION: API

LITERATURE REFERENCES:

No. 18

NAME	2-Methyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156

STRUCTURAL FORMULA



$CH_3(CH_2)_2C(CH_3) = CH_2$

		Ref.
F.P. °C	-135.720	2
F.P. 100%		
B.P. °C 760 mm	60.7	2
100	8.77	4
30	-14.06	4
10	-31.35	5
1	-59.83	5
Pressure mm 25°C	206.	5
t_e	896.	5
Density g/ml 20°C	0.6799	2
d_4^t 25	0.6751	2
30	0.6720	4
a	0.7010	4
b	$-0.0_{3}93$	4
Ref. Index n_D 20°C	1.3920	2
25	1.3891	2
30	1.3856	4
"C"	0.7666	4
MR (Obs.)	29.47	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0506	2
Dielectric		
A -14 to	6.88772	5
B 100 °C	1154.7	5
C	227.	5
A* -14 to	1.25060	5
B* 76 °C	1076.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 100 to	7.30907	5
Bc t_c °C	1447.	5
Cc	267.	5
Cryos. A°		
consts. B°		
t_e °C	65.92	5

		Ref.
dt/dP °C/mm		
25°C	0.1163	5
BP	0.0413	2
t_e	0.0361	5
30 mm	0.5710	5
ΔHm cal/g		
ΔHv cal/g 25°C	85.91	5
30 mm	92.57	5
BP	80.01	5
t_e	79.15	5
t_e (d, e)	79.13	5
$\Delta Hv/T_e$	19.64	5
d -14 to	90.21	5
e 66 °C	0.1680	5
d' to		
e' °C		
d_c g/ml	0.237	5
v_c ml/g	4.223	5
t_c °C	225.	5
P_c mm	23164.	5
PV/RT 25°C	0.9817	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9492	5
t_c	0.265	5
ΔHc kcal/m	897.54	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap 300 °K	0.38690	2
400	0.48481	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0262	4
n 600 °K	0.0014	4
o	$-0.0_{6}56$	4
m' 700 to	0.1283	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}36$	4
Surface tension dynes/cm. 20°C	18.78	5
γ 30	17.70	5
40	16.64	5
Parachor [P] 20°C		
30		
40		
Sugd.	257.3	5
Exp. L.l.%/wt.		
u.		
Dispersion	129.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

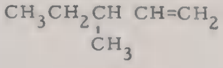
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 19

NAME	3-Methyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156



$$CH_3CH_2\underset{CH_3}{\underset{|}{C}}H\ CH{=}CH_2$$

		Ref.
F. P. °C	-153.0	2
F. P. 100%		
B. P. °C		
760 mm	54.14	2
100	3.06	4
30	-19.38	4
10	-36.38	5
1	-64.34	5
Pressure		
mm 25°C	264.	5
t_e	877.	5
Density		
g/ml 20°C	0.6675	2
d_4^t 25	0.6628	2
30	0.6581	4
a	0.6865	4
b	-0.0_390	4
Ref. Index		
n_D 20°C	1.3842	2
25	1.3814	2
30	1.3786	4
"C"	0.7691	4
MR (Obs.)	29.49	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0504	2
Dielectric		
A -19 to	6.87729	5
B 92 °C	1130.4	5
C	229.	5
A* -19 to	1.26723	5
B* 69 °C	1062.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 92 to	7.2989	5
Bc t_c °C	1417.	5
Cc	267.	5
Cryos. A°		
consts. B°		
t_e °C	58.61	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0936	5
BP	0.040	2
t_e	0.0362	5
30 mm	0.5612	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.10	5
30 mm	90.36	5
BP	78.99	5
t_e	77.39	5
t_e (d, e)	77.38	5
ΔHv/T_e	19.63	5
d -19 to	87.36	5
e 59 °C	0.1546	5
d' to		
e' °C		
d_c g/ml	0.234	5
v_c ml/g	4.276	5
t_c °C	213.	5
P_c mm	22329.	5
PV/RT		
25°C	0.9798	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9498	5
t_c	0.265	5
ΔHc kcal/m	900.08	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.41376	2
400	0.52759	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0261	4
n 600 °K	0.0017	4
o	-0.0_682	4
m' 700 to	0.1155	4
n' 1000 °K	0.0012	4
o'	-0.0_642	4
Surface tension		
dynes/cm. 20°C	17.24	5
γ 30	16.24	5
40	15.25	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L. l. %/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

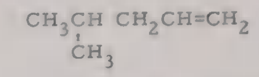
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 20

NAME	4-Methyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156



$CH_3\underset{\displaystyle CH_3}{CH}\,CH_2CH{=}CH_2$

		Ref.
F.P. °C	-153.63	2
F.P. 100%		
B.P. °C		
760 mm	53.88	2
100	2.84	4
30	-19.58	4
10	-36.57	5
1	-64.51	5
Pressure		
mm 25°C	267.	5
t_e	877.	5
Density		
g/ml 20°C	0.6642	2
d_4^t 25	0.6594	2
30	0.6546	4
a	0.6836	4
b	$-0.0_{3}92$	4
Ref. Index		
n_D 20°C	1.3828	2
25	1.3799	2
30	1.3770	4
"C"	0.7703	4
MR (Obs.)	29.54	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0507	2
Dielectric		
A -20 to	6.87757	5
B 91 °C	1130.0	5
C	229.	5
A* -20 to	1.25996	5
B* 68 °C	1059.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 91 to	7.2991	5
Bc t_c °C	1415.	5
Cc	267.	5
Cryos. A°		
consts. B°		
t_e °C	58.35	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0928	5
BP	0.0404	2
t_e	0.0361	5
30 mm	0.5607	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.95	5
30 mm	90.29	5
BP	78.14	5
t_e	77.41	5
t_e (d, e)	77.40	5
$\Delta Hv/T_e$	19.65	5
d -20 to	87.05	5
e 58 °C	0.1653	5
d' to		
e' °C		
d_c g/ml	0.233	5
v_c ml/g	4.295	5
t_c °C	212.	5
P_c mm	22185.	5
PV/RT		
25°C	0.9807	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9509	5
t_c	0.265	5
ΔHc kcal/m	899.44	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.36171	2
400	0.46224	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0583	4
n 600 °K	0.0015	4
o	$-0.0_{6}57$	4
m' 700 to	0.0700	4
n' 1000 °K	0.0012	4
o'	$-0.0_{6}42$	4
Surface tension		
dynes/cm. 20°C	16.90	5
γ 30	15.90	5
40	14.91	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

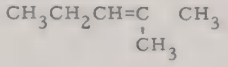
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 21

NAME	2-Methyl-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156



$CH_3CH_2CH{=}C\ CH_3$ with CH_3 below C

		Ref.
F.P. °C	-135.070	2
F.P. 100%		
B.P. °C		
760 mm	67.29	2
100	14.48	4
30	-8.75	4
10	-26.36	5
1	-55.34	5
Pressure mm 25°C	160.	5
t_e	914.	5
Density g/ml 20°C	0.6863	2
d_4^t 25	0.6815	2
30	0.6767	4
a	0.7055	4
b	-0.0393	4
Ref. Index		
n_D 20°C	1.4004	2
25	1.3976	2
30	1.3945	4
"C"	0.7778	4
MR (Obs.)	29.75	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0573	4
Dielectric		
A -9 to	6.89488	5
B 108 °C	1178.1	5
C	226.	5
A* -9 to	1.25698	5
B* 83 °C	1101.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 108 to	7.3157	5
Bc t_c °C	1476.	5
Cc	266.	5
Cryos. A°		
consts. B°		
t_e °C	73.28	5

		Ref.
dt/dP °C/mm		
25°C	0.1451	5
BP	0.0418	5
t_e	0.0362	5
30 mm	0.5811	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.87	5
30 mm	94.73	5
BP	81.84	5
t_e	80.84	5
t_e (d, e)	80.82	5
$\Delta Hv/T_e$	19.64	5
d -9 to	93.24	5
e 73 °C	0.1695	5
d' to		
e' °C		
d_c g/ml	0.237	5
v_c ml/g	4.216	5
t_c °C	235.	5
P_c mm	23580.	5
PV/RT		
25°C	0.9837	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9486	5
t_c	0.264	5
ΔHc kcal/m	896.14	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.36147	2
400	0.46343	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0144	4
n 600 °K	0.0014	4
o	$-0.0_{6}58$	4
m' 700 to	0.0644	4
n' 1000 °K	0.0012	4
o'	$-0.0_{6}42$	4
Surface tension		
dynes/cm. 20°C	19.32	5
γ 30	18.22	5
40	17.16	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L. l. %/wt.		
u.		
Dispersion	131.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

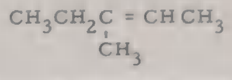
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 22

NAME	3-Methyl-cis-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156



$CH_3CH_2\underset{CH_3}{C}=CHCH_3$

		Ref.
F.P. °C	-138.445	2
F.P. 100%		
B.P. °C 760 mm	70.45	2
100	17.21	4
30	-6.21	4
10	-23.95	4
1	-53.19	4
Pressure mm 25°C	140.97	4
t_e	923.5	4
Density g/ml 20°C	0.6986	2
d_4^t 25	0.6942	2
30	0.6898	4
a	0.7162	4
b	-0.0_3855	4
Ref. Index n_D 20°C	1.4045	2
25	1.4018	2
30	1.3990	4
"C"	0.7715	5
MR (Obs.)	29.49	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0552	2
Dielectric		
A -6 to	6.8985	5
B 114 °C	1189.5	5
C	225.6	5
A* -6 to	1.25784	5
B* 87 °C	1113.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 114 to	7.3195	5
Bc t_c °C	1492.3	5
Cc	266.4	5
Cryos. A°		
consts. B°		
t_e °C	76.82	5

		Ref.
dt/dP °C/mm 25°C	0.1627	5
BP	0.0421	4
t_e	0.0362	5
30 mm	0.5859	5
ΔHm cal/g		
ΔHv cal/g 25°C	89.77	5
30 mm	95.77	5
BP	82.73	5
t_e	81.67	5
t_e (d, e)	81.64	5
$\Delta Hv/T_e$	19.64	5
d -6 to	94.71	5
e 77 °C	0.1701	5
d' to		
e' °C		
d_c g/ml	0.242	5
v_c ml/g	4.140	5
t_c °C	243.	5
P_c mm	24391.	5
PV/RT 25°C	0.9815	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9483	5
t_c	0.264	5
ΔHc kcal/m	896.78	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.36147	2
400	0.46343	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0144	4
n 600 °K	0.0014	4
o	-0.0_658	4
m' 700 to	0.0644	4
n' 1000 °K	0.0012	4
o'	-0.0_642	4
Surface tension dynes/cm. γ 20°C	20.75	5
30	19.69	5
40	18.65	5
Parachor [P] 20°C		
30		
40		
Sugd.	257.3	5
Exp. L.l.%/wt. u.		
Dispersion	131.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

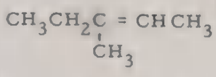
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 23

NAME	3-Methyl-trans-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156



$$CH_3CH_2\underset{\substack{|\\ CH_3}}{C}=CHCH_3$$

		Ref.
F.P. °C	-134.840	2
F.P. 100%		
B.P. °C		
760 mm	67.63	2
100	14.77	4
30	-8.48	4
10	-26.09	5
1	-55.11	5
Pressure		
mm 25°C	158.	5
t_e	915.	5
Density		
g/ml 20°C	0.6942	2
d_4^t 25	0.6898	2
30	0.6854	4
a	0.7119	4
b	-0.0_386	4
Ref. Index		
n_D 20°C	1.4016	2
25	1.3989	2
30	1.3962	4
"C"	0.7712	4
MR (Obs.)	29.49	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0545	4
Dielectric		
A -8 to	6.89552	5
B 110 °C	1179.4	5
C	226.	5
A* -8 to	1.25531	5
B* 84 °C	1103.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 110 to	7.3167	5
Bc t_c °C	1480.	5
Cc	266.	5
Cryos. A°		
consts. B°		
t_e °C	73.66	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1468	5
BP	0.0418	5
t_e	0.0362	5
30 mm	0.5816	5
ΔHm cal/g		
ΔHv cal/g		
25°C	89.07	5
30 mm	94.85	5
BP	82.38	5
t_e	80.94	5
t_e (d, e)	80.92	5
$\Delta Hv/T_e$	19.64	5
d -8 to	93.46	5
e 74 °C	0.1638	5
d' to		
e' °C		
d_c g/ml	0.241	5
v_c ml/g	4.151	5
t_c °C	238.	5
P_c mm	24093.	5
PV/RT		
25°C	0.9823	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9486	5
t_c	0.264	5
ΔHc kcal/m	896.78	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.36147	2
400	0.46343	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0144	4
n 600 °K	0.0014	4
o	-0.0_658	4
m' 700 to	0.0644	4
n' 1000 °K	0.0012	4
o'	-0.0_642	4
Surface tension		
dynes/cm. 20°C	20.22	5
γ 30	19.18	5
40	18.15	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L. l. %/wt.		
u.		
Dispersion	131.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

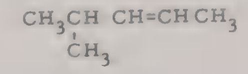
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 24

NAME	4-Methyl-cis-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156


$$CH_3\underset{CH_3}{CH}\ CH{=}CHCH_3$$

		Ref.
F.P. °C	-134.430	2
F.P. 100%		
B.P. °C		
760 mm	56.30	2
100	4.96	4
30	-17.60	4
10	-34.69	5
1	-62.82	5
Pressure mm 25°C	243.	5
t_e	883.	5
Density g/ml 20°C	0.6690	2
d_4^t 25	0.6642	2
30	0.6593	4
a	0.6884	4
b	-0.0_392	4
Ref. Index		
n_D 20°C	1.3880	2
25	1.3849	2
30	1.3820	4
"C"	0.7746	4
MR (Obs.)	29.68	2
MR (Calc.)	28.978	5
(nD-d/2)	1.0535	4
Dielectric		
A | -18 to	6.88274	5
B | 94 °C	1139.0	5
C	228.	5
A* | -18 to	1.25914	5
B* | 71 °C	1064.5	5
K		
c		
t_k | to		
t_x | °C		
A' | to		
B' | °C		
C'		
A'* to		
B'* °C		
Ac | 94 to	7.3041	5
Bc | t_c °C	1427.	5
Cc	267.	5
Cryos. A°		
consts. B°		
t_e °C	61.01	5

		Ref.
dt/dP °C/mm		
25°C	0.1005	5
BP	0.0406	5
t_e	0.0361	5
30 mm	0.5643	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.81	5
30 mm	91.13	5
BP	78.78	5
t_e	78.01	5
t_e (d, e)	77.99	5
$\Delta Hv/T_e$	19.64	5
d | -18 to	88.19	5
e | 61 °C	0.1671	5
d' | to		
e' | °C		
d_c g/ml	0.234	5
v_c ml/g	4.265	5
t_c °C	217.	5
P_c mm	22487.	5
PV/RT		
25°C	0.9764	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9496	5
t_c	0.264	5
ΔHc kcal/m	897.84	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v | to		
A^v | °C		
(B^v) | to		
(A^v) | °C		
c_p liq. °K		
c_p vap 300 °K	0.38108	2
400	0.48125	2
c_v vap.		

		Ref.
f | to		
g | °K		
h		
f' | to		
g' | °K		
h'		
m | 300 to	-0.0000	4
n | 600 °K	0.0015	4
o	-0.0_667	4
m' | 700 to	0.1236	4
n' | 1000 °K	0.0011	4
o'	-0.0_636	4
Surface tension		
dynes/cm. 20°C	17.41	5
γ 30	16.38	5
40	15.37	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L.1.%/wt.		
u.		
Dispersion	126.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

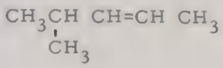
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 25

NAME	4-Methyl-trans-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156


$CH_3\underset{\displaystyle CH_3}{CH}\ CH{=}CH\ CH_3$

		Ref.
F.P. °C	-140.810	2
F.P. 100%		
B.P. °C		
760 mm	58.55	2
100	6.91	4
30	-15.78	4
10	-32.98	5
1	-61.28	5
Pressure		
mm 25°C	224.	5
t_e	889.	5
Density		
g/ml 20°C	0.6686	2
d_4^t 25	0.6638	2
30	0.6590	4
a	0.6879	4
b	-0.0_392	4
Ref. Index		
n_D 20°C	1.3889	2
25	1.3859	2
30	1.2831	4
"C"	0.7768	4
MR (Obs.)	29.76	2
MR (Calc.)	29.441	5
(nD-d/2)	1.0546	4
Dielectric		
A -20 to	6.88584	5
B 97 °C	1147.1	5
C	227.9	5
A* -20 to	1.25965	5
B* 70 °C	1073.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 97 to	7.3069	5
Bc t_c °C	1437.	5
Cc	267.	5
Cryos. A°		
consts. B°		
t_e °C	63.52	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1083	5
BP	0.0409	4
t_e	0.0361	5
30 mm	0.5677	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.88	5
30 mm	91.88	5
BP	79.41	5
t_e	78.60	5
t_e (d, e)	78.58	5
ΔHv/T_e	19.64	5
d -10 to	89.23	5
e 70 °C	0.1677	5
d' to		
e' °C		
d_c g/ml	0.234	5
v_c ml/g	4.28	5
t_c °C	220.	5
P_c mm	22557.	5
PV/RT		
25°C	0.9814	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9494	5
t_c	0.264	5
ΔHc kcal/m	896.84	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.40330	2
400	0.49788	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0441	4
n 600 °K	0.0014	4
o	-0.0_663	4
m' 700 to	0.1393	4
n' 1000 °K	0.0011	4
o'	-0.0_636	4
Surface tension		
dynes/cm. 20°C	17.37	5
γ 30	16.35	5
40	15.35	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L. 1.%/wt.		
u.		
Dispersion	128.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

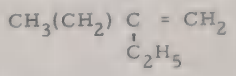
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 26

NAME	2-Ethyl-1-butene
STRUCTURAL FORMULA	
Mole % Pur.	
Ref.	
Molecular Formula	C_6H_{12}
Molecular Weight	84.156



$CH_3(CH_2)\underset{\substack{|\\C_2H_5}}{C} = CH_2$

		Ref.
F.P. °C	-131.530	2
F.P. 100%		
B.P. °C		
760 mm	64.66	2
100	12.22	4
30	-10.84	4
10	-28.32	5
1	-57.10	5
Pressure mm 25°C	177.	5
t_e	907.	5
Density g/ml 20°C	0.6894	2
d_4^t 25	0.6847	2
30	0.6800	4
a	0.7083	4
b	-0.0_391	4
Ref. Index n_D 20°C	1.3969	2
25	1.3941	2
30	1.3912	4
"C"	0.7680	4
MR (Obs.)	29.390	2
MR (Calc.)	29.441	5
(nD-d/2)	1.0522	2
Dielectric		
A -5 to 106 °C	6.89411	5
B	1169.4	5
C	226.7	5
A* -5 to 90 °C	1.26041	5
B*	1094.9	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 106 to t_c °C	7.3153	5
Bc	1466.	5
Cc	267.	5
Cryos. consts. A°		
B°		
t_e °C	70.34	5

		Ref.
dt/dP °C/mm		
25°C	0.1328	5
BP	0.0415	4
t_e	0.0361	5
30 mm	0.5769	5
ΔHm cal/g		
ΔHv cal/g		
25°C	87.83	5
30 mm	93.91	5
BP	81.15	5
t_e	80.21	5
t_e (d, e)	80.19	5
ΔHv/T_e	19.65	5
d -5 to 75 °C	92.08	5
e	0.1690	5
d' to °C		
e'		
d_c g/ml	0.240	5
v_c ml/g	4.15	5
t_c °C	232.	5
P_c mm	23699.	5
PV/RT		
25°C	0.9844	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9488	5
t_c	0.263	5
ΔHc kcal/m	898.18	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap 300 °K	0.38120	2
400	0.48363	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	-0.0060	4
n	0.0015	4
o	-0.0_667	4
m' 700 to 1000 °K	0.1283	4
n'	0.0011	4
o'	-0.0_636	4
Surface tension dynes/cm. γ 20°C	19.66	5
30	18.57	5
40	17.50	5
Parachor [P] 20°C		
30		
40		
Sugd.	257.3	5
Exp. L. l. %/wt.		
u.		
Dispersion	128.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

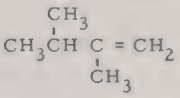
PURIFICATION: API

LITERATURE REFERENCES:

No. 27

NAME	2, 3-Dimethyl-1-butene			
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156	

STRUCTURAL FORMULA



$CH_3\overset{\displaystyle CH_3}{C}H\ \underset{\displaystyle CH_3}{C}=CH_2$

		Ref.
F.P. °C	-157.27	2
F.P. 100%		
B.P. °C		
760 mm	55.67	2
100	4.41	4
30	-18.11	4
10	-35.17	5
1	-63.25	5
Pressure		
mm 25°C	249.	5
t_e	881.	5
Density		
g/ml 20°C	0.6779	2
d_4^t 25	0.6731	2
30	0.6682	4
a	0.6973	4
b	-0.0_392	4
Ref. Index		
n_D 20°C	1.3904	2
25	1.3874	2
30	1.3845	4
"C"	0.7689	4
MR (Obs.)	29.45	2
MR (Calc.)	29.441	5
(nD-d/2)	1.0515	2
Dielectric		
A -15 to	6.88200	5
B 94 °C	1136.7	5
C	228.4	5
A* -15 to	1.25939	5
B* 80 °C	1063.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 94 to	7.3038	5
Bc t_c °C	1425.	5
Cc	267.	5
Cryos. A°		
consts. B°		
t_e °C	60.31	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0985	5
BP	0.0406	4
t_e	0.0361	5
30 mm	0.5633	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.74	5
30 mm	90.92	5
BP	78.61	5
t_e	77.85	5
t_e (d, e)	77.84	5
$\Delta Hv/T_e$	19.64	5
d -15 to	87.90	5
e 70 °C	0.1669	5
d' to		
e' °C		
d_c g/ml	0.238	5
v_c ml/g	4.20	5
t_c °C	217.	5
P_c mm	22833.	5
PV/RT		
25°C	0.9919	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9497	5
t_c	0.264	2
ΔHc kcal/m	896.32	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap.300°K	0.40924	2
400	0.50620	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0285	4
n 600 °K	0.0015	4
o	-0.0_675	4
m' 700 to	0.1113	4
n' 1000 °K	0.0012	4
o'	-0.0_642	4
Surface tension		
dynes/cm. 20°C	18.35	5
γ 30	17.28	5
40	16.23	5
Parachor [P]		
20°C		
30		
40		
Sugd.	257.3	5
Exp. L.1.%/wt.		
u.		
Dispersion	129.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

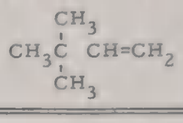
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 28

NAME	3,3-Dimethyl-1-butene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CH_2$$

		Ref.
F.P. °C	-115.20	2
F.P. 100%		
B.P. °C 760 mm 100 30 10 1	 41.24 -8.26 -29.96 -46.38 -73.36	 2 4 4 5 5
Pressure mm 25°C t_e	 425.9 841.0	 5 5
Density g/ml 20°C d_4^t 25 30	 0.6529 0.6479 0.6429	 2 2 4
a b	0.6732 $-0.0_{3}93$	4 4
Ref. Index n_D 20°C 25 30	 1.3760 1.3730 1.3699	 2 2 4
"C"	0.7705	4
MR (Obs.) MR (Calc.) (nD-d/2)	29.58 29.441 1.0495	2 5 2
Dielectric		
A -30 to B 76 °C C	6.84763 1080.6 231.	5 5 5
A* -30 to B* 54 °C K c t_k to t_x °C	1.24167 1010.1	5 5
A' to B' °C C'		
A'* to B'* °C		
Ac 76 to Bc t_c °C Cc	7.2704 1356. 268.	5 5 5
Cryos. A° consts. B°		
t_e °C	44.29	5

		Ref.
dt/dP °C/mm 25°C BP t_e 30 mm	 0.0619 0.0392 0.0363 0.5424	 5 4 5 5
ΔHm cal/g		
ΔHv cal/g 25°C 30 mm BP t_e t_e (d, e) ΔHv/T_e	 77.42 85.87 74.36 73.87 73.86 19.58	 5 5 5 5 5 5
d -30 to e 50 °C d' to e' °C	81.02 0.1616	5 5
d_c g/ml v_c ml/g t_c °C P_c mm	0.230 4.348 192. 21009.	5 5 5 5
PV/RT 25°C 30 mm BP t_e t_c	 0.9752 1.0000 0.9550 0.9521 0.265	 5 5 5 5 5
ΔHc kcal/m ΔHf ΔFf	896.85	2
Viscosity centistokes η °C		
B^v to A^v °C (B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. 300 °K 400 c_v vap.	0.36112 0.46224	2 2

			Ref.
f g h	to °K		
f' g' h'	to °K		
m n o	300 to 600 °K	0.0071 0.0013 $-0.0_{6}42$	4 4 4
m' n' o'	700 to 1000 °K	-0.0237 0.0014 $-0.0_{6}59$	4 4 4
Surface tension dynes/cm. 20°C γ 30 40		 15.72 14.71 13.71	 5 5 5
Parachor [P] 20°C 30 40 Sugd.		 257.3	 5
Exp. L.l.%/wt. u. Dispersion		 124.	 2
Flash Point °C Fire Point			
M Spec. Ultra V. X-Ray Dif. Infrared			
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in			

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

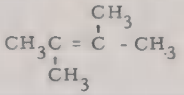
PURIFICATION: API

LITERATURE REFERENCES:

No. 29

NAME	2,3-Dimethyl-2-butene		
Mole % Pur.	Ref.	Molecular Formula C_6H_{12}	Molecular Weight 84.156

STRUCTURAL FORMULA



$$CH_3C(CH_3) = C(CH_3) - CH_3$$

		Ref.
F.P. °C	-74.280	2
F.P. 100%		
B.P. °C		
760 mm	73.21	2
100	19.63	4
30	-3.95	4
10	-21.82	5
1	-51.26	5
Pressure mm 25°C	127.	5
t_e	931.	5
Density g/ml 20°C	0.7080	2
d_4^t 25	0.7034	2
30	0.6988	4
a	0.7264	4
b	-0.0_390	4
Ref. Index n_D 20°C	1.4122	2
25	1.4094	2
30	1.4065	4
"C"	0.7750	4
MR (Obs.)	29.59	2
MR (Calc.)	29.441	5
(nD-d/2)	1.0582	2
Dielectric		
A -10 to 118 °C	6.90393	5
B	1200.1	5
C	225.	5
A* -10 to 90 °C	1.25993	5
B*	1124.0	5
K		
c		
t_k to		
t_x °C		
A' to °C		
B'		
C'		
A'* to		
B'* °C		
Ac 118 to t_c °C	7.3249	5
Bc	1506.	5
Cc	266.	5
Cryos. A° consts. B°		
t_e °C	79.91	5

		Ref.
dt/dP °C/mm		
25°C	0.1776	5
BP	0.0424	4
t_e	0.0361	5
30 mm	0.5899	5
ΔHm cal/g		
ΔHv cal/g		
25°C	90.14	5
30 mm	96.73	5
BP	83.55	5
t_e	82.44	5
t_e (d, e)	82.41	5
$\Delta Hv/T_e$	19.65	5
d -10 to 90 °C	96.06	5
e	0.1708	5
d' to °C		
e'		
d_c g/ml	0.246	5
v_c ml/g	4.06	5
t_c °C	248.	5
P_c mm	24865.	5
PV/RT		
25°C	0.9725	5
30 mm	1.0000	5
BP	0.9540	5
t_e	0.9481	5
t_c	0.264	5
ΔHc kcal/m	895.19	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.36397	2
400	0.45867	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0464	4
n 600 °K	0.0011	4
o	-0.0_628	4
m' 700 to	0.0157	4
n' 1000 °K	0.0013	4
o'	-0.0_648	4
Surface tension dynes/cm. 20°C	21.90	5
γ 30	20.75	5
40	19.63	5
Parachor [P] 20°C		
30		
40		
Sugd.	257.3	5
Exp. L.I.%/wt. u.		
Dispersion	132.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 30

NAME	1-Heptene				STRUCTURAL FORMULA $CH_3(CH_2)_4CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}		Molecular Weight 98.182	

		Ref.
F.P. °C	-119.029	2
F.P. 100%		
B.P. °C		
760 mm	93.643	2
100	37.418	2
30	12.68	2
10	-6.07	2
1	-36.95	5
Pressure mm 25°C	56.33	5
t_e	987.5	5
Density g/ml 20°C	0.69698	2
d_4^t 25	0.69267	2
30	0.68829	4
a	0.71432	4
b	-0.0_3855	4
Ref. Index n_D 20°C	1.39980	2
25	1.39713	2
30	1.39451	4
"C"	0.7648	4
MR (Obs.)	34.135	2
MR (Calc.)	34.059	5
(nD-d/2)	1.05131	2
Dielectric		
A 10 to	6.90069	2
B 128 °C	1257.505	2
C	219.18	2
A* 10 to	1.30572	5
B* 113 °C	1179.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 128 to	7.3119	5
Bc t_c °C	1560.	5
Cc	259.	5
Cryos. A° consts. B°		
t_e °C	102.75	5

		Ref.
dt/dP °C/mm		
25°C	0.3655	5
BP	0.04447	4
t_e	0.03624	5
30 mm	0.6189	5
ΔHm cal/g		
ΔHv cal/g		
25°C	87.79	5
30 mm	89.09	5
BP	76.31	5
t_e	74.93	5
t_e (d, e)	74.87	5
$\Delta Hv/T_e$	19.57	5
d 10 to	91.10	5
e 110 °C	0.1579	5
d' to		
e' °C		
d_c g/ml	0.235	5
v_c ml/g	4.247	5
t_c °C	262.	5
P_c mm	20813.	5
PV/RT		
25°C	0.9966	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9441	5
t_c	0.260	5
ΔHc kcal/m	1048.05	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 0 °C	0.44	2
20	0.35	2
40	0.29	2
80	0.22	2
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37960	2
400	0.47840	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0251	4
n 600 °K	0.0013	4
o	-0.0_648	4
m' 700 to	0.1118	4
n' 1000 °K	0.0011	4
o'	-0.0_637	4
Surface tension dynes/cm. 20°C	19.52	5
γ 30	18.55	5
40	17.60	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.l.%/wt. u.		
Dispersion	118.2	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 31

NAME	cis-2-Heptene	STRUCTURAL FORMULA $CH_3(CH_2)_3CH{=}CHCH_3$
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}
Molecular Weight 98.182		

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	98.5	2
100	41.62	4
30	16.53	4
10	-2.50	5
1	-33.90	5
Pressure mm 25°C	45.64	5
t_e	1001.	5
Density g/ml 20°C	0.708	2
d_4^t 25	0.704	2
30	0.700	4
a	0.724	4
b	-0.038	4
Ref. Index n_D 20°C	1.406	2
25	1.403	2
30	1.401	4
"C"	0.7640	4
MR (Obs.)	34.0	2
MR (Calc.)	34.059	5
(nD-d/2)	1.052	2
Dielectric		
A 12 to	6.93647	5
B 135 °C	1292.9	5
C	220.	5
A* 12 to	1.33477	5
B* 118 °C	1213.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 135 to	7.3513	5
Bc t_c °C	1605.	5
Cc	261.	5
Cryos. A° consts. B°		
t_e °C	108.18	5

		Ref.
dt/dP °C/mm		
25°C	0.4366	5
BP	0.0449	4
t_e	0.0362	5
30 mm	0.6280	5
ΔHm cal/g		
ΔHv cal/g		
25°C	90.00	5
30 mm	90.19	5
BP	77.53	5
t_e	76.09	5
t_e (d, e)	76.04	5
$\Delta Hv/T_e$	19.59	5
d 12 to	92.74	5
e 115 °C	0.1544	5
d' to		
e' °C		
d_c g/ml	0.247	5
v_c ml/g	4.054	5
t_c °C	272.	5
P_c mm	21783.	5
PV/RT		
25°C	0.9976	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9432	5
t_c	0.255	5
ΔHc kcal/m	1046.45	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	20.79	5
γ 30	19.84	5
40	18.91	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L. l. %/wt. u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 32

NAME	trans-2-Heptene	STRUCTURAL FORMULA	
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182
			$CH_3(CH_2)_3CH{=}CHCH_3$

		Ref.
F.P. °C	-109.480	2
F.P. 100%		
B.P. °C		
760 mm	97.95	2
100	41.12	4
30	16.06	4
10	-2.96	5
1	-34.31	5
Pressure mm 25°C	46.55	5
t_e	999.3	5
Density g/ml 20°C	0.7012	2
d_4^t 25	0.6969	2
30	0.6926	4
a	0.7183	4
b	-0.0$_3$85	4
Ref. Index n_D 20°C	1.4045	2
25	1.4020	2
30	1.3992	4
"C"	0.7687	4
MR (Obs.)	34.28	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0539	2
Dielectric		
A 16 to	6.93364	5
B 134 °C	1290.2	5
C	220.	5
A* 16 to	1.33255	5
B* 118 °C	1210.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 134 to	7.3482	5
Bc t_c °C	1600.	5
Cc	261.	5
Cryos. A° consts. B°		
t_e °C	107.57	5

		Ref.
dt/dP °C/mm		
25°C	0.4274	5
BP	0.0449	4
t_e	0.0362	5
30 mm	0.6273	5
ΔHm cal/g		
ΔHv cal/g		
25°C	90.18	5
30 mm	89.99	5
BP	77.35	5
t_e	75.91	5
t_e (d, e)	75.87	5
$\Delta Hv/T_e$	19.57	5
d 16 to	92.46	5
e 108 °C	0.1543	5
d' to		
e' °C		
d_c g/ml	0.243	5
v_c ml/g	4.120	5
t_c °C	269.	5
P_c mm	21316.	5
PV/RT		
25°C	0.9972	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9433	5
t_c	0.255	5
ΔHc kcal/m	1045.45	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	20.00	5
γ 30	19.03	5
40	18.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 33

NAME	cis-3-Heptene		STRUCTURAL FORMULA $CH_3CH_2CH{=}CH(CH_2)_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C 760 mm	95.75	2
100	39.21	4
30	14.29	4
10	-4.62	5
1	-35.81	5
Pressure mm 25°C	52.36	5
t_e	993.0	5
Density g/ml 20°C	0.7030	2
d_4^t 25	0.6987	2
30	0.6944	4
a	0.7202	4
b	-0.0_385	4
Ref. Index n_D 20°C	1.4059	2
25	1.4033	2
30	1.4006	4
"C"	0.7692	4
MR (Obs.)	34.30	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0544	2
Dielectric		
A 14 to 131 °C	6.93161	5
B	1282.3	5
C	221.	5
A* 14 to 115 °C	1.33298	5
B*	1203.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 131 to	7.3464	5
Bc t_c °C	1591.	5
Cc	261.	5
Cryos. A° consts. B°		
t_e °C	105.09	5

		Ref.
dt/dP °C/mm		
25°C	0.3945	5
BP	0.0447	4
t_e	0.0362	5
30 mm	0.6239	5
ΔHm cal/g		
ΔHv cal/g 25°C	87.77	5
30 mm	89.36	5
BP	76.83	5
t_e	75.44	5
t_e (d, e)	75.39	5
$\Delta Hv/T_e$	19.58	5
d 14 to	91.56	5
e 105 °C	0.1539	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.096	5
t_c °C	266.	5
P_c mm	21322.	5
PV/RT 25°C	0.9983	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9435	5
t_c	0.255	5
ΔHc kcal/m	1046.45	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	20.21	5
30	19.22	5
40	18.26	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L. l. %/wt. u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 34

NAME	trans-3-Heptene		STRUCTURAL FORMULA $CH_3(CH_2)_2CH{=}CHCH_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

		Ref.
F.P. °C	-136.63	2
F.P. 100%		
B.P. °C 760 mm	95.67	2
100	39.13	4
30	14.04	4
10	-4.70	5
1	-35.88	5
Pressure mm 25°C	52.50	5
t_e	993.	5
Density g/ml 20°C	0.6981	2
d_4^t 25	0.6938	2
30	0.6895	4
a	0.7152	4
b	-0.0_385	4
Ref. Index n_D 20°C	1.4043	2
25	1.4017	2
30	1.3989	4
"C"	0.7717	4
MR (Obs.)	34.42	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0553	2
Dielectric		
A 10 to	6.93075	5
B 131 °C	1281.8	5
C	221.	5
A* 10 to	1.32366	5
B* 115 °C	1200.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 131 to	7.3454	5
Bc t_c °C	1590.	5
Cc	261.	5
Cryos. A°		
consts. B°		
t_e °C	105.03	5

		Ref
dt/dP °C/mm 25°C	0.3933	5
BP	0.0447	4
t_e	0.0362	5
30 mm	0.6239	5
ΔHm cal/g		
ΔHv cal/g 25°C	83.77	5
30 mm	89.22	5
BP	76.79	5
t_e	75.40	5
t_e (d, e)	75.37	5
$\Delta Hv/T_e$	19.57	5
d 10 to	91.36	5
e 110 °C	0.1523	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	266.	5
P_c mm	21116.	5
PV/RT 25°C	0.9984	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9435	5
t_c	0.255	5
ΔHc kcal/m	1045.45	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	19.65	5
30	18.68	5
40	17.79	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

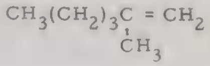
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 35

NAME	2-Methyl-1-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$CH_3(CH_2)_3\underset{CH_3}{C} = CH_2$

		Ref.
F.P. °C	-102.840	2
F.P. 100%		
B.P. °C		
760 mm	92.00	2
100	35.93	4
30	11.22	4
10	-7.52	5
1	-38.42	5
Pressure		
mm 25°C	60.48	5
t_e	982.3	5
Density		
g/ml 20°C	0.7030	2
d_4^t 25	0.6986	2
30	0.6942	4
a	0.7206	4
b	-0.0_387	4
Ref. Index		
n_D 20°C	1.4034	2
25	1.4007	2
30	1.3979	4
"C"	0.7647	4
MR (Obs.)	34.11	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0520	2
Dielectric		
A 5 to	6.92518	5
B 127 °C	1268.0	5
C	221.52	5
A* 5 to	1.33076	5
B* 110 °C	1189.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 127 to	7.3403	5
Bc t_c °C	1574.	5
Cc	261.	5
Cryos. A°		
consts. B°		
t_e °C	100.88	5

		Ref.
dt/dP		
°C/mm		
25°C	0.3442	5
BP	0.0443	4
t_e	0.03624	5
30 mm	0.6184	5
ΔHm cal/g		
ΔHv cal/g		
25°C	89.66	5
30 mm	88.25	5
BP	75.88	5
t_e	74.56	5
t_e (d, e)	74.52	5
$\Delta Hv/T_e$	19.57	5
d 5 to	89.97	5
e 110 °C	0.1531	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	261.	5
P_c mm	21115.	5
PV/RT		
25°C	0.9962	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9438	5
t_c	0.255	5
ΔHc kcal/m	1044.44	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	20.20	5
γ 30	19.19	5
40	18.20	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	125.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

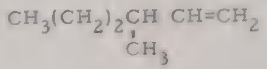
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 36

NAME	3-Methyl-1-hexene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}		Molecular Weight 98.182	



$$CH_3(CH_2)_2\underset{CH_3}{\underset{|}{CH}}\ CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	84.	2
100	28.99	4
30	4.76	4
10	-13.61	5
1	-43.90	5
Pressure		
mm 25°C	83.37	5
t_e	960.	5
Density		
g/ml 20°C	0.695	2
d_4^t 25	0.691	2
30	0.687	4
a	0.7108	4
b	-0.0_377	4
Ref. Index		
n_D 20°C	1.397	2
25	1.394	2
30	1.392	4
"C"	0.7619	4
MR (Obs.)	34.0	2
MR (Calc.)	34.059	5
(nD-d/2)	1.049	2
Dielectric		
A 5 to	6.91598	4
B 118 °C	1239.0	4
C	223.04	4
A* 5 to	1.32981	5
B* 102 °C	1161.66	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 118 to	7.3318	5
Bc t_c °C	1539.	5
Cc	262.	5
Cryos. A°		
consts. B°		
t_e °C	91.92	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2587	5
BP	0.0435	4
t_e	0.0362	5
30 mm	0.6063	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.03	5
30 mm	85.97	5
BP	73.99	5
t_e	72.82	5
t_e (d, e)	72.79	5
$\Delta Hv/T_e$	19.58	5
d 5 to	86.69	5
e 92 °C	0.1512	5
d' to		
e' °C		
d_c g/ml	0.241	5
v_c ml/g	4.142	5
t_c °C	249.	5
P_c mm	20818.	5
PV/RT		
25°C	0.9956	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9450	5
t_c	0.260	5
ΔHc kcal/m	1046.98	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	19.29	5
γ 30	18.40	5
40	17.54	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	120.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

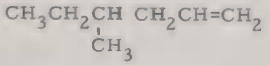
PURIFICATION: API

LITERATURE REFERENCES:

No. 37

NAME	4-Methyl-1-hexene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{CH}\,CH_2CH{=}CH_2$

		Ref.
F.P. °C	-141.45	2
F.P. 100%		
B.P. °C 760 mm	86.73	2
100	31.38	4
30	6.99	4
10	-11.51	5
1	-42.00	5
Pressure mm 25°C	74.69	5
t_e	967.8	5
Density g/ml 20°C	0.6985	2
d_4^t 25	0.6942	2
30	0.6899	4
a	0.7156	4
b	-0.0384	4
Ref. Index n_D 20°C	1.4000	2
25	1.3973	2
30	1.3947	4
"C"	0.7635	4
MR (Obs.)	34.08	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0508	2
Dielectric		
A 7 to	6.92084	4
B 121 °C	1249.38	4
C	222.52	4
A* 7 to	1.33154	5
B* 105 °C	1171.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 121 to	7.3364	5
Bc t_c °C	1551.	5
Cc	262.	5
Cryos. A° consts. B°		
t_e °C	94.98	5

		Ref.
dt/dP °C/mm 25°C	0.2851	5
BP	0.0437	4
t_e	0.0362	5
30 mm	0.6103	5
ΔHm cal/g		
ΔHv cal/g 25°C	84.06	5
30 mm	86.78	5
BP	74.68	5
t_e	73.46	5
t_e (d, e)	73.43	5
ΔHv/T_e	19.59	5
d 7 to	87.84	5
e 95 °C	0.1517	5
d' to		
e' °C		
d_c g/ml	0.241	5
v_c ml/g	4.152	5
t_c °C	252.	5
P_c mm	20890.	5
PV/RT 25°C	0.9945	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9448	5
t_c	0.260	5
ΔHc kcal/m	1046.98	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	19.68	5
γ 30	18.71	5
40	17.76	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt. u.		
Dispersion	120.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

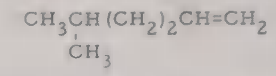
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 38

NAME	5-Methyl-1-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$CH_3\underset{CH_3}{CH}(CH_2)_2CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	85.31	2
100	30.13	4
30	5.82	4
10	-12.61	5
1	-42.99	5
Pressure mm 25°C	79.11	5
t_e	963.7	5
Density g/ml 20°C	0.6920	2
d_4^t 25	0.6876	2
30	0.6832	4
a	0.7095	4
b	-0.0_386	4
Ref. Index n_D 20°C	1.3966	2
25	1.3940	2
30	1.3911	4
"C"	0.7645	4
MR (Obs.)	34.12	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0506	2
Dielectric		
A 0 to 119 °C	6.91781	4
B	1243.80	4
C	222.79	4
A* 0 to 100 °C	1.33013	5
B*	1166.27	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 119 to t_c °C	7.3332	5
Bc	1544.	5
Cc	262.	5
Cryos. consts. A°		
B°		
t_e °C	93.39	5

		Ref
dt/dP °C/mm		
25°C	0.2710	5
BP	0.0436	4
t_e	0.0362	5
30 mm	0.6083	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.45	5
30 mm	86.35	5
BP	74.31	5
t_e	73.11	5
t_e (d, e)	73.08	5
$\Delta Hv/T_e$	19.58	5
d 0 to 100 °C	87.23	5
e	0.1515	5
d' to °C		
e'		
d_c g/ml	0.249	5
v_c ml/g	4.202	5
t_c °C	249.	5
P_c mm	20522.	5
PV/RT		
25°C	0.9941	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9449	5
t_c	0.260	5
ΔHc kcal/m	1046.34	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	18.96	5
30	17.99	5
40	17.05	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	120.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

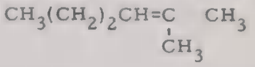
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 39

NAME	2-Methyl-2-hexene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182	



$CH_3(CH_2)_2CH{=}\underset{CH_3}{C}\ CH_3$

		Ref.
F.P. °C	-130.350	2
F.P. 100%		
B.P. °C		
760 mm	95.41	2
100	38.91	4
30	14.01	4
10	-48.87	5
1	-36.05	5
Pressure		
mm 25°C	52.60	5
t_e	991.4	5
Density		
g/ml 20°C	0.7082	2
d_4^t 25	0.7038	2
30	0.6994	4
a	0.7257	4
b	-0.0_386	4
Ref. Index		
n_D 20°C	1.4106	2
25	1.4079	2
30	1.4052	4
"C"	0.7719	4
MR (Obs.)	34.39	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0565	2
Dielectric		
A 14 to	6.93104	4
B 132 °C	1281.02	4
C	220.87	4
A* 14 to	1.33367	5
B* 110 °C	1202.03	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 132 to	7.3460	5
Bc t_c °C	1590.	5
Cc	261.	5
Cryos. A°		
consts. B°		
t_e °C	104.69	5

		Ref.
dt/dP		
°C/mm		
25°C	0.3897	5
BP	0.0446	4
t_e	0.0362	5
30 mm	0.6234	5
ΔHm cal/g		
ΔHv cal/g		
25°C	87.56	5
30 mm	89.26	5
BP	76.71	5
t_e	75.32	5
t_e (d, e)	75.27	5
$\Delta Hv/T_e$	19.57	5
d 14 to	91.42	5
e 110 °C	0.1543	5
d' to		
e' °C		
d_c g/ml	0.242	5
v_c ml/g	4.13	5
t_c °C	266.	5
P_c mm	21467.	5
PV/RT		
25°C	0.9972	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9430	5
t_c	0.259	5
ΔHc kcal/m	1043.04	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	20.81	5
γ 30	19.79	5
40	18.79	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

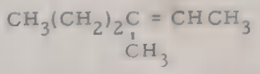
PURIFICATION: API

LITERATURE REFERENCES:

No. 40

NAME	3-Methyl-cis-2-hexene				
Mole % Pur.	Ref.	Molecular Formula	C_7H_{14}	Molecular Weight	98.182

STRUCTURAL FORMULA



$$CH_3(CH_2)_2\underset{\displaystyle CH_3}{C} = CHCH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	94.	2
100	37.68	4
30	12.85	4
10	-5.98	5
1	-37.04	5
Pressure		
mm 25°C	55.75	5
t_e	987.4	5
Density		
g/ml 20°C	0.7120	2
d_4^t 25	0.7080	2
30	0.7039	4
a	0.7282	4
b	-0.0_380	4
Ref. Index		
n_D 20°C	1.410	2
25	1.407	2
30	1.405	4
"C"	0.7667	4
MR (Obs.)	34.2	2
MR (Calc.)	34.059	5
(nD-d/2)	1.054	2
Dielectric		
A 5 to	6.92821	4
B 131 °C	1275.50	4
C	221.14	4
A* 5 to	1.33242	5
B* 115 °C	1196.77	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 131 to	7.3437	5
Bc t_c °C	1585.	5
Cc	262.	5
Cryos. A°		
consts. B°		
t_e °C	103.11	5

		Ref.
dt/dP °C/mm		
25°C	0.3700	5
BP	0.0445	4
t_e	0.0363	5
30 mm	0.6214	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.96	5
30 mm	88.84	5
BP	76.35	5
t_e	74.99	5
t_e (d, e)	74.95	5
$\Delta Hv/T_e$	19.57	5
d 5 to	90.81	5
e 115 °C	0.1539	5
d' to		
e' °C		
d_c g/ml	0.245	5
v_c ml/g	4.08	5
t_c °C	266.	5
P_c mm	21745.	5
PV/RT		
25°C	0.9967	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9431	5
t_c	0.259	5
ΔHc kcal/m	1043.68	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.26	5
γ 30	20.29	5
40	19.34	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

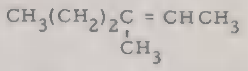
PURIFICATION: API

LITERATURE REFERENCES:

No. 41

NAME	3-Methyl-trans-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$CH_3(CH_2)_2\underset{CH_3}{C}=CHCH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	94.	2
100	37.68	4
30	12.85	4
10	-5.98	5
1	-37.04	5
Pressure mm 25°C	55.75	5
t_e	987.4	5
Density g/ml 20°C	0.7120	2
d_4^t 25	0.7080	2
30	0.7039	4
a	0.7282	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.410	2
25	1.407	2
30	1.405	4
"C"	0.7667	4
MR (Obs.)	34.2	2
MR (Calc.)	34.059	5
(nD-d/2)	1.054	2
Dielectric		
A 5 to 131 °C	6.92821	4
B	1275.50	4
C	221.14	4
A* 5 to 115 °C	1.33242	5
B*	1196.77	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 131 to t_c °C	7.3437	5
Bc	1585.	5
Cc	262.	5
Cryos. consts. A°		
B°		
t_e °C	103.11	5

		Ref.
dt/dP °C/mm		
25°C	0.3700	5
BP	0.0445	4
t_e	0.0363	5
30 mm	0.6214	5
ΔHm cal/g		
ΔHv cal/g 25°C	86.96	5
30 mm	88.84	5
BP	76.35	5
t_e	74.99	5
t_e (d, e)	74.95	5
ΔHv/T_e	19.57	5
d 5 to 115 °C	90.81	5
e	0.1539	5
d' to		
e' °C		
d_c g/ml	0.245	5
v_c ml/g	4.08	5
t_c °C	266.	5
P_c mm	21745.	5
PV/RT 25°C	0.9967	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9431	5
t_c	0.259	5
ΔHc kcal/m	1043.68	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.26	5
30	20.29	5
40	19.34	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

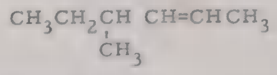
PURIFICATION: API

LITERATURE REFERENCES:

No. 42

NAME	4-Methyl-cis-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{CH}\ CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	87.37	2
100	31.74	4
30	7.27	4
10	-11.3	5
1	-41.8	5
Pressure		
mm 25°C	73.49	5
t_e	969.6	5
Density		
g/ml 20°C	0.6996	2
d_4^t 25	0.6953	2
30	0.6910	4
a	0.7168	4
b	-0.0_385	4
Ref. Index		
n_D 20°C	1.4024	2
25	1.3997	2
30	1.3971	4
"C"	0.7667	4
MR (Obs.)	34.20	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0526	2
Dielectric		
A 0 to 122 °C	6.89863	4
B	1243.0	4
C	222.	4
A* 0 to 110 °C	1.30908	5
B*	1165.33	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 122 to t_c °C	7.3136	5
Bc	1545.	5
Cc	261.	5
Cryos. A°		
consts. B°		
t_e °C	95.74	5

		Ref.
dt/dP °C/mm		
25°C	0.2900	5
BP	0.0440	4
t_e	0.0364	5
30 mm	0.6122	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.01	5
30 mm	86.69	5
BP	74.50	5
t_e	73.26	5
t_e (d, e)	73.23	5
ΔHv/T_e	19.50	5
d 0 to 110 °C	87.80	5
e	0.1521	5
d' to °C		
e'		
d_c g/ml	0.238	5
v_c ml/g	4.20	5
t_c °C	254.	5
P_c mm	20630.	5
PV/RT		
25°C	0.9948	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9446	5
t_c	0.260	5
ΔHc kcal/m	1045.38	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension		
dynes/cm. 20°C	19.81	5
γ 30	18.83	5
40	17.87	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

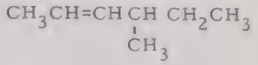
PURIFICATION: API

LITERATURE REFERENCES:

No. 43

NAME	4-Methyl-trans-2-hexene
Mole % Pur.	
Ref.	
Molecular Formula	C_7H_{14}
Molecular Weight	98.182

STRUCTURAL FORMULA



$CH_3CH{=}CH\underset{CH_3}{\underset{|}{CH}}CH_2CH_3$

		Ref.
F.P. °C	-126.5	2
F.P. 100%		
B.P. °C		
760 mm	87.6	2
100	31.9	4
30	7.40	4
10	-11.2	5
1	-41.7	5
Pressure mm 25°C	72.99	5
t_e	970.3	5
Density g/ml 20°C	0.6975	2
d_4^t 25	0.6932	2
30	0.6889	4
a	0.7146	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4023	2
25	1.3997	2
30	1.3970	4
"C"	0.7688	4
MR (Obs.)	34.30	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0536	2
Dielectric		
A 7 to 122 °C	6.89566	4
B	1243.0	4
C	222.	4
A* 7 to 106 °C	1.30573	5
B*	1165.24	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 122 to t_c °C	7.3106	5
Bc	1545.	5
Cc	261.	5
Cryos. consts. A°		
B°		
t_e °C	96.01	5

		Ref.
dt/dP °C/mm		
25°C	0.2920	5
BP	0.0441	4
t_e	0.0364	5
30 mm	0.6129	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.92	5
30 mm	86.67	5
BP	74.49	5
t_e	73.25	5
t_e (d, e)	73.21	5
ΔHv/T_e	19.48	5
d 7 to 96 °C	87.80	5
e	0.1519	5
d' to °C		
e'		
d_c g/ml	0.236	5
v_c ml/g	4.244	5
t_c °C	254.	5
P_c mm	20512.	5
PV/RT		
25°C	0.9943	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9446	5
t_c	0.260	5
ΔHc kcal/m	1044.38	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. 20°C	19.57	5
γ 30	18.61	5
40	17.66	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

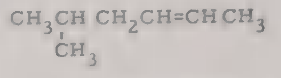
PURIFICATION: API

LITERATURE REFERENCES:

No. 44

NAME	5-Methyl-cis-2-hexene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}		Molecular Weight 98.182	

STRUCTURAL FORMULA



$CH_3\underset{\displaystyle CH_3}{\underset{|}{C}}H\ CH_2CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	91.	2
100	33.0	4
30	7.77	4
10	-11.3	5
1	-42.5	5
Pressure mm 25°C	70.05	5
t_e	980.8	5
Density g/ml 20°C	0.700	2
d_4^t 25	0.696	2
30	0.692	4
a	0.7161	4
b	-0.0_379	4
Ref. Index n_D 20°C	1.400	2
25	1.397	2
30	1.395	4
"C"	0.7619	4
MR (Obs.)	34.0	2
MR (Calc.)	34.059	5
(nD-d/2)	1.050	2
Dielectric		
A 0 to 127 °C	6.75578	4
B	1212.86	4
C	222.	4
A* 0 to 110 °C	1.16082	5
B*	1133.96	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 127 to t_c °C	7.1733	5
Bc	1522.	5
Cc	264.	5
Cryos. consts. A°		
B°		
t_e °C	100.21	5

		Ref.
dt/dP °C/mm		
25°C	0.3119	5
BP	0.0462	4
t_e	0.0379	5
30 mm	0.6301	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.01	5
30 mm	84.52	5
BP	72.46	5
t_e	71.17	5
t_e (d, e)	71.13	5
$\Delta Hv/T_e$	18.71	5
d 0 to 110 °C	85.65	5
e	0.1449	5
d' to °C		
e'		
d_c g/ml	0.215	5
v_c ml/g	4.64	5
t_c °C	260.	5
P_c mm	18614.	5
PV/RT		
25°C	0.9956	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9441	5
t_c	0.255	5
ΔHc kcal/m	1044.74	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	19.85	5
30	18.94	5
40	18.04	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

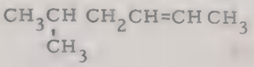
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 45

NAME	5-Methyl-trans-2-hexene	STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,CH_2CH{=}CH\,CH_3$

Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	86.	2
100	28.55	4
30	3.58	4
10	-15.2	5
1	-46.0	5
Pressure		
mm 25°C	85.52	5
t_e	966.5	5
Density		
g/ml 20°C	0.700	2
d_4^t 25	0.696	2
30	0.692	4
a	0.7161	4
b	-0.0_379	4
Ref. Index		
n_D 20°C	1.400	2
25	1.397	2
30	1.395	4
"C"	0.7619	4
MR (Obs.)	34.0	2
MR (Calc.)	34.059	5
(nD-d/2)	1.050	2
Dielectric		
A 0 to	6.72252	4
B 121 °C	1183.25	4
C	222.	4
A* 0 to	1.13430	5
B* 110 °C	1105.83	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 121 to	7.1390	5
Bc t_c °C	1486.	5
Cc	263.	5
Cryos. A° consts. B°		
t_e °C	94.60	5

		Ref.
dt/dP °C/mm		
25°C	0.2618	5
BP	0.0458	4
t_e	0.0381	5
30 mm	0.6226	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.92	5
30 mm	83.02	5
BP	71.01	5
t_e	69.81	5
t_e (d, e)	69.76	5
ΔHv/T_e	18.63	5
d 0 to	83.54	5
e 110 °C	0.1456	5
d' to		
e' °C		
d_c g/ml	0.211	5
v_c ml/g	4.74	5
t_c °C	253.	5
P_c mm	18186.	5
PV/RT		
25°C	0.9942	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9445	5
t_c	0.258	5
ΔHc kcal/m	1043.74	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	19.85	5
γ 30	18.93	5
40	18.02	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

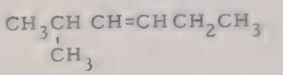
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 46

NAME	2-Methyl-cis-3-hexene	STRUCTURAL FORMULA



$CH_3\underset{|}{C}H(CH_3)\ CH{=}CH\ CH_2CH_3$

Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	86.	2
100	28.6	4
30	3.58	4
10	-15.2	5
1	-46.0	5
Pressure mm 25°C	85.52	5
t_e	966.5	5
Density g/ml 20°C	0.694	2
d_4^t 25	0.690	2
30	0.686	4
a	0.710	4
b	-0.0_379	4
Ref. Index n_D 20°C	1.399	2
25	1.396	2
30	1.394	4
"C"	0.7667	4
MR (Obs.)	34.2	2
MR (Calc.)	34.059	5
(nD-d/2)	1.052	2
Dielectric		
A -5 to	6.72252	4
B 121 °C	1183.25	4
C	222.	4
A* -5 to	1.13430	5
B* 110 °C	1105.83	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 121 to	7.1388	5
Bc t_c °C	1486.	5
Cc	263.	5
Cryos. A° consts. B°		
t_e °C	94.60	5

		Ref.
dt/dP °C/mm		
25°C	0.2618	5
BP	0.0458	4
t_e	0.0381	5
30 mm	0.6226	5
ΔHm cal/g		
ΔHv cal/g 25°C	79.89	5
30 mm	83.02	5
BP	71.01	5
t_e	69.80	5
t_e (d, e)	69.76	5
$\Delta Hv/T_e$	18.63	5
d -5 to	83.54	5
e 110 °C	0.1457	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	252.	5
P_c mm	17992.	5
PV/RT 25°C	0.9938	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9445	5
t_c		
ΔHc kcal/m	1044.74	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	19.17	5
30	18.28	5
40	17.40	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L. 1.%/wt. u.		
Dispersion	122.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

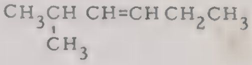
PURIFICATION: API

LITERATURE REFERENCES:

No. 47

NAME	2-Methyl-trans-3-hexene				
Mole % Pur.		Ref.	Molecular Formula C_7H_{14}		Molecular Weight 98.182

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\ CH{=}CH\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	86.	2
100	28.6	4
30	3.58	4
10	-15.2	5
1	-46.0	5
Pressure		
mm 25°C	85.52	5
t_e	966.5	5
Density		
g/ml 20°C	0.694	2
d_4^t 25	0.690	2
30	0.686	4
a	0.710	4
b	-0.0_3379	4
Ref. Index		
n_D 20°C	1.399	2
25	1.396	2
30	1.394	4
"C"	0.7667	4
MR (Obs.)	34.2	2
MR (Calc.)	34.059	5
(nD-d/2)	1.052	2
Dielectric		
A -5 to	6.72252	4
B 121 °C	1183.25	4
C	222.	4
A* -5 to	1.13430	5
B* 110 °C	1105.83	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 121 to	7.1388	5
Bc t_c °C	1486.	5
Cc	263.	5
Cryos. A°		
consts. B°		
t_e °C	94.60	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2618	5
BP	0.0458	4
t_e	0.0381	5
30 mm	0.6226	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.89	5
30 mm	83.02	5
BP	71.01	5
t_e	69.80	5
t_e (d, e)	69.76	5
ΔHv/T_e	18.63	5
d -5 to	83.54	5
e 110 °C	0.1457	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	252.	5
P_c mm	17992.	5
PV/RT		
25°C	0.9938	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9445	5
t_c		
ΔHc kcal/m	1044.74	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	19.17	5
γ 30	18.28	5
40	17.40	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

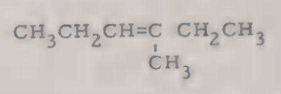
PURIFICATION: API

LITERATURE REFERENCES:

No. 48

NAME	3-Methyl-cis-3-hexene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$CH_3CH_2CH{=}\underset{CH_3}{C}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	95.35	2
100	36.9	4
30	11.46	4
10	-7.8	5
1	-39.3	5
Pressure mm 25°C	58.69	5
t_e	993.	5
Density g/ml 20°C	0.7132	2
d_4^t 25	0.7089	2
30	0.7046	4
a	0.7303	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4123	2
25	1.4096	2
30	1.4070	4
"C"	0.7695	4
MR (Obs.)	34.28	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0557	2
Dielectric		
A 0 to	6.77018	4
B 133 °C	1230.40	4
C	221.	4
A* 0 to	1.17140	5
B* 115 °C	1151.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 133 to	7.1872	5
Bc t_c °C	1543.	5
Cc	263.	5
Cryos. A°		
consts. B°		
t_e °C	105.07	5

		Ref.
dt/dP °C/mm		
25°C	0.3640	5
BP	0.0465	4
t_e	0.0378	5
30 mm	0.6358	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.98	5
30 mm	85.99	5
BP	73.66	5
t_e	72.28	5
t_e (d, e)	72.23	5
$\Delta Hv/T_e$	18.76	5
d 0 to	87.67	5
e 115 °C	0.1469	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	268.	5
P_c mm	19203.	5
PV/RT		
25°C	0.9968	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9432	5
t_c		
ΔHc kcal/m	1043.68	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.40	5
γ 30	20.38	5
40	19.37	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

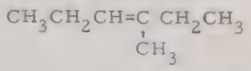
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 49

NAME	3-Methyl-trans-3-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$CH_3CH_2CH{=}\underset{CH_3}{C}\,CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	93.55	2
100	35.3	4
30	9.95	4
10	-9.2	5
1	-40.5	5
Pressure mm 25°C	63.13	5
t_e	987.5	5
Density g/ml 20°C	0.7099	2
d_4^t 25	0.7056	2
30	0.7013	4
a	0.7271	4
b	-0.0_385	4
Ref. Index n_D 20°C	1.4107	2
25	1.4080	2
30	1.4053	4
"C"	0.7702	4
MR (Obs.)	34.32	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0558	2
Dielectric		
A 0 to	6.75851	4
B 130 °C	1219.73	4
C	221.	4
A* 0 to	1.16211	5
B* 110 °C	1140.86	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.1751	5
Bc t_c °C	1530.	5
Cc	263.	5
Cryos. A° consts. B°		
t_e °C	103.05	5

		Ref.
dt/dP °C/mm		
25°C	0.3413	5
BP	0.0464	4
t_e	0.0379	5
30 mm	0.6330	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.22	5
30 mm	85.44	5
BP	73.14	5
t_e	71.79	5
t_e (d, e)	71.74	5
$\Delta Hv/T_e$	18.73	5
d 0 to	86.91	5
e 110 °C	0.1472	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	265.	5
P_c mm	18933.	5
PV/RT		
25°C	0.9963	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9433	5
t_c		
ΔHc kcal/m	1043.68	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.01	5
γ 30	19.99	5
40	19.00	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt. u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

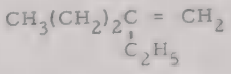
PURIFICATION: API

LITERATURE REFERENCES:

No. 50

NAME	2-Ethyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$CH_3(CH_2)_2C(C_2H_5)=CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	94.	2
100	35.7	4
30	10.33	4
10	-8.8	5
1	-40.2	5
Pressure mm 25°C	61.99	5
t_e	988.8	5
Density g/ml 20°C	0.708	2
d_4^t 25	0.704	2
30	0.700	4
a	0.724	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.405	2
25	1.402	2
30	1.399	4
"C"	0.7622	4
MR (Obs.)	34.0	2
MR (Calc.)	34.059	5
(nD-d/2)	1.051	2
Dielectric		
A 0 to	6.76143	4
B 131 °C	1222.4	4
C	221.	4
A* 0 to	1.16444	5
B* 110 °C	1143.39	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 131 to	7.1782	5
Bc t_c °C	1534.	5
Cc	263.	5
Cryos. A° consts. B°		
t_e °C	103.56	5

		Ref.
dt/dP °C/mm		
25°C	0.3468	5
BP	0.0464	4
t_e	0.0379	5
30 mm	0.6337	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.41	5
30 mm	85.58	5
BP	73.27	5
t_e	71.91	5
t_e (d, e)	71.86	5
ΔHv/T_e	18.74	5
d 0 to	87.10	5
e 110 °C	0.1471	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	266.	5
P_c mm	19065.	5
PV/RT		
25°C	0.9963	5
30 mm	1.0000	5
BP	0.9515	5
t_e	0.9433	5
t_c		
ΔHc kcal/m	1045.08	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	20.78	5
30	19.85	5
40	18.93	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt. u.		
Dispersion	125.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 51

NAME	3-Ethyl-1-pentene		STRUCTURAL FORMULA
			$CH_3CH_2\underset{C_2H_5}{CH}\ CH{=}CH_2$
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

		Ref.
F. P. °C	-127.4	2
F. P. 100%		
B. P. °C		
760 mm	85.13	2
100	27.4	4
30	2.34	4
10	-16.5	5
1	-47.3	5
Pressure mm 25°C	90.06	5
t_e	964.1	5
Density g/ml 20°C	0.6962	2
d_4^t 25	0.6917	2
30	0.6872	4
a	0.7142	4
b	-0.0_388	4
Ref. Index n_D 20°C	1.3980	2
25	1.3954	2
30	1.3928	4
"C"	0.7624	4
MR (Obs.)	34.04	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0499	2
Dielectric		
A -5 to 119 °C	6.70122	4
B	1177.18	4
C	223.	4
A* -5 to 105 °C	1.11300	5
B*	1099.41	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 119 to t_c °C	7.1192	5
Bc	1481.	5
Cc	265.	5
Cryos. consts. A°		
B°		
t_e °C	93.70	5

		Ref.
dt/dP °C/mm		
25°C	0.2520	5
BP	0.0461	4
t_e	0.0384	5
30 mm	0.6244	5
ΔHm cal/g		
ΔHv cal/g 25°C	78.81	5
30 mm	82.03	5
BP	70.24	5
t_e	69.06	5
t_e (d, e)	69.02	5
$\Delta Hv/T_e$	18.48	5
d -5 to 105 °C	82.36	5
e	0.1423	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C	250.	5
P_c mm	17476.	5
PV/RT 25°C	0.9938	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9445	5
t_c		
ΔHc kcal/m	1047.60	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. 20°C	19.42	5
γ 30	18.41	5
40	17.42	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

$T_R = 0.75\,T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

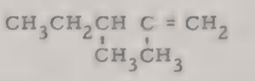
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 52

NAME	2,3-Dimethyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$CH_3CH_2\underset{CH_3}{CH}\,\underset{CH_3}{C}=CH_2$

		Ref.
F.P. °C	-134.8	2
F.P. 100%		
B.P. °C 760 mm	84.26	2
100	27.0	4
30	2.07	4
10	-16.7	5
1	-47.4	5
Pressure mm 25°C	91.70	5
t_e	961.5	5
Density g/ml 20°C	0.7051	2
d_4^t 25	0.7008	2
30	0.6965	4
a	0.7223	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4033	2
25	1.4007	2
30	1.3981	4
"C"	0.7623	4
MR (Obs.)	34.00	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0508	2
Dielectric		
A -5 to 120 °C	6.72442	4
B	1181.0	4
C	223.	4
A* -5 to 105 °C	1.13745	5
B*	1103.49	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 120 to t_c °C	7.1424	5
Bc	1485.	5
Cc	265.	5
Cryos. consts. A°, B°		
t_e °C	92.65	5

		Ref.
dt/dP °C/mm 25°C	0.2466	5
BP	0.0457	4
t_e	0.0381	5
30 mm	0.6209	5
ΔHm cal/g		
ΔHv cal/g 25°C	79.05	5
30 mm	82.33	5
BP	70,53	5
t_e	69.37	5
t_e (d, e)	69.33	5
$\Delta Hv/T_e$	18.62	5
d -5 to 105 °C	82.63	5
e	0.1435	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C	250.	5
P_c mm	18171.	5
PV/RT 25°C	0.9933	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9446	5
t_c		
ΔHc kcal/m	1043.42	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	20.43	5
30	19.43	5
40	18.45	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt. u.		
Dispersion	125.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

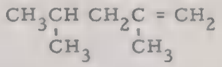
PURIFICATION: API

LITERATURE REFERENCES:

No. 53

NAME	2,4-Dimethyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,CH_2\underset{CH_3}{C}=CH_2$

		Ref.
F.P. °C	-123.8	2
F.P. 100%		
B.P. °C		
760 mm	81.64	2
100	24.7	4
30	-0.04	4
10	-18.7	5
1	-49.2	5
Pressure		
mm 25°C	101.2	5
t_e	954.0	5
Density		
g/ml 20°C	0.6943	2
d_4^t 25	0.6898	2
30	0.6853	4
a	0.7124	4
b	-0.0_388	4
Ref. Index		
n_D 20°C	1.3986	2
25	1.3959	2
30	1.3952	4
"C"	0.7656	4
MR (Obs.)	34.18	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0514	2
Dielectric		
A 0 to 115 °C	6.72933	4
B	1176.26	4
C	224.	4
A* 0 to 100 °C	1.14483	5
B*	1098.95	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 115 to t_c °C	7.1479	5
Bc	1477.	5
Cc	265.	5
Cryos. A°		
consts. B°		
t_e °C	89.69	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2261	5
BP	0.0454	4
t_e	0.0381	5
30 mm	0.6173	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.00	5
30 mm	81.55	5
BP	69.95	5
t_e	68.84	5
t_e (d, e)	68.81	5
$\Delta Hv/T_e$	18.62	5
d 0 to 95 °C	81.54	5
e	0.1420	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C	245.	5
P_c mm	17719.	5
PV/RT		
25°C	0.9917	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9449	5
t_c		
ΔHc kcal/m	1042.74	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension		
dynes/cm. 20°C	19.20	5
γ 30	18.20	5
40	17.21	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L. 1.%/wt.		
u.		
Dispersion	125.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

$T_R = 0.75\,T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

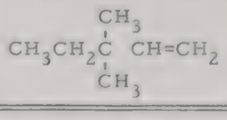
PURIFICATION: API

LITERATURE REFERENCES:

No. 54

NAME	3, 3-Dimethyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CH_2$$

		Ref.
F.P. °C	-134.3	2
F.P. 100%		
B.P. °C		
760 mm	77.54	2
100	20.96	4
30	-3.59	4
10	-22.1	5
1	-52.2	5
Pressure		
mm 25°C	119.2	5
t_e	942.9	5
Density		
g/ml 20°C	0.6974	2
d_4^t 25	0.6932	2
30	0.6890	4
a	0.7143	4
b	-0.0_382	4
Ref. Index		
n_D 20°C	1.3984	2
25	1.3958	2
30	1.3932	4
"C"	0.7619	4
MR (Obs.)	34.01	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0497	2
Dielectric		
A -10 to	6.69410	4
B 111 °C	1149.86	4
C	224.	4
A* -10 to	1.11439	5
B* 100 °C	1073.58	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 111 to	7.1122	5
Bc t_c °C	1447.	5
Cc	265.	5
Cryos. A°		
consts. B°		
t_e °C	85.13	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1965	5
BP	0.0452	4
t_e	0.0383	5
30 mm	0.6116	5
ΔHm cal/g		
ΔHv cal/g		
25°C	76.14	5
30 mm	80.18	5
BP	68.68	5
t_e	67.63	5
t_e (d, e)	67.60	5
$\Delta Hv/T_e$	18.53	5
d -10 to	79.67	5
e 100 °C	0.1418	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	240.	5
P_c mm	17499.	5
PV/RT		
25°C	0.9909	5
30 mm	1.0000	5
BP	0.9525	5
t_e	0.9458	5
t_c		
ΔHc kcal/m	1044.77	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	19.54	5
γ 30	18.58	5
40	17.64	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	120.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

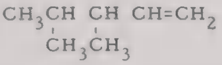
PURIFICATION: API

LITERATURE REFERENCES:

No. 55

NAME	3,4-Dimethyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\,\underset{CH_3}{CH}\,CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	81.	2
100	24.1	4
30	-0.69	4
10	-19.3	5
1	-49.8	5
Pressure mm 25°C	104.2	5
t_e	952.2	5
Density g/ml 20°C	0.701	2
d_4^t 25	0.697	2
30	0.693	4
a	0.717	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.3995	2
25	1.3969	2
30	1.3946	4
"C"	0.7599	4
MR (Obs.)	33.9	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0490	2
Dielectric		
A -1 to 116 °C	6.71798	4
B	1170.33	4
C	224.	4
A* -1 to 99 °C	1.13434	5
B*	1093.21	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 116 to t_c °C	7.1370	5
Bc	1472.	5
Cc	265.	5
Cryos. A° consts. B°		
t_e °C	88.99	5

		Ref.
dt/dP °C/mm		
25°C	0.2208	5
BP	0.0454	4
t_e	0.0382	5
30 mm	0.6168	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.34	5
30 mm	81.22	5
BP	69.65	5
t_e	68.55	5
t_e (d, e)	68.51	5
ΔHv/T_e	18.58	5
d -1 to 89 °C	81.13	5
e	0.1417	5
d' to °C		
e'		
d_c g/ml	0.210	5
v_c ml/g	4.769	5
t_c °C	246.	5
P_c mm	17980.	5
PV/RT		
25°C	0.9907	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9449	5
t_c		
ΔHc kcal/m	1045.32	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	19.95	5
30	19.03	5
40	18.12	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	120.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

T_R = 0.75 T_c

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

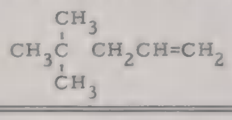
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 56

NAME	4, 4-Dimethyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH_2CH{=}CH_2$$

		Ref.
F.P. °C	-136.600	2
F.P. 100%		
B.P. °C		
760 mm	72.49	2
100	16.43	4
30	-7.87	4
10	-26.13	5
1	-55.93	5
Pressure mm 25°C	144.6	5
t_e	928.4	5
Density g/ml 20°C	0.6827	2
d_4^t 25	0.6785	2
30	0.6743	4
a	0.6995	4
b	-0.0_381	4
Ref. Index n_D 20°C	1.3918	2
25	1.3892	2
30	1.3867	4
"C"	0.7661	4
MR (Obs.)	34.23	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0504	2
Dielectric		
A -15 to	6.67374	4
B 105 °C	1128.36	4
C	225.	4
A* -15 to	1.09996	5
B* 90 °C	1052.99	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 105 to	7.0920	5
Bc t_c °C	1421.	5
Cc	265.	5
Cryos. A°		
consts. B°		
t_e °C	79.47	5

		Ref.
dt/dP °C/mm		
25°C	0.1663	5
BP	0.0448	4
t_e	0.0384	5
30 mm	0.6049	5
ΔHm cal/g		
ΔHv cal/g		
25°C	73.95	5
30 mm	78.52	5
BP	67.25	5
t_e	66.30	5
t_e (d, e)	66.27	5
$\Delta Hv/T_e$	18.46	5
d -15 to	77.42	5
e 90 °C	0.1403	5
d' to		
e' °C		
d_c g/ml	0.201	5
v_c ml/g	4.985	5
t_c °C	230.	5
P_c mm	16735.	5
PV/RT		
25°C	0.9880	5
30 mm	1.0000	5
BP	0.9525	5
t_e	0.9462	5
t_c	0.261	5
ΔHc kcal/m	1043.65	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	17.93	5
γ 30	17.03	5
40	16.15	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	120.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

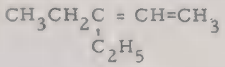
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 57

NAME	3-Ethyl-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$CH_3CH_2C(C_2H_5) = CH{=}CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	96.01	2
100	37.51	4
30	11.98	4
10	-7.27	5
1	-38.83	5
Pressure mm 25°C	57.19	5
t_e	993.9	5
Density g/ml 20°C	0.7204	2
d_4^t 25	0.7159	2
30	0.7114	4
a	0.7384	4
b	-0.0_389	4
Ref. Index n_D 20°C	1.4148	2
25	1.4122	2
30	1.4094	4
"C"	0.7662	4
MR (Obs.)	34.11	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0546	2
Dielectric		
A 5 to	6.77291	4
B 134 °C	1233.83	4
C	221.	4
A* 5 to	1.17411	5
B* 116 °C	1154.43	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 134 to	7.1903	5
Bc t_c °C	1548.	5
Cc	264.	5
Cryos. A°		
consts. B°		
t_e °C	105.79	5

		Ref.
dt/dP °C/mm		
25°C	0.3725	5
BP	0.0465	4
t_e	0.0378	5
30 mm	0.6369	5
ΔHm cal/g		
ΔHv cal/g 25°C	84.20	5
30 mm	86.15	5
BP	73.79	5
t_e	72.40	5
t_e (d, e)	72.35	5
$\Delta Hv/T_e$	18.76	5
d 12 to	87.92	5
e 106 °C	0.1472	5
d' to		
e' °C		
d_c g/ml	0.217	5
v_c ml/g	4.598	5
t_c °C	270.	5
P_c mm	19361.	5
PV/RT 25°C	0.9967	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9426	5
t_c	0.258	5
ΔHc kcal/m	1044.30	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	22.28	5
γ 30	21.17	5
40	20.09	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

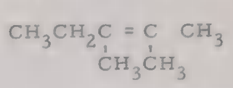
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 58

NAME	•2, 3-Dimethyl-2-pentene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182	



$CH_3CH_2C = C\ CH_3$ with CH_3 below the first C and CH_3 below the second C

		Ref.
F.P. °C	-118.3	2
F.P. 100%		
B.P. °C 760 mm	97.46	2
100	38.46	4
30	12.75	4
10	-6.63	5
1	-38.37	5
Pressure mm 25°C	54.94	5
t_e	998.2	5
Density g/ml 20°C	0.7277	2
d_4^t 25	0.7234	2
30	0.7190	4
a	0.7450	4
b	$-0.0_{3}85$	4
Ref. Index n_D 20°C	1.4208	2
25	1.4182	2
30	1.4156	4
"C"	0.7688	4
MR (Obs.)	34.20	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0570	2
Dielectric		
A 5 to 137 °C	6.75429	4
B	1233.55	4
C	221.	4
A* 5 to 115 °C	1.15351	5
B*	1153.70	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 137 to	7.1726	5
Bc t_c °C	1551.	5
Cc	264.	5
Cryos. consts. A°		
B°		
t_e °C	107.50	5

		Ref.
dt/dP °C/mm 25°C	0.3878	5
BP	0.0470	4
t_e	0.0381	5
30 mm	0.6412	5
ΔHm cal/g		
ΔHv cal/g 25°C	84.24	5
30 mm	86.03	5
BP	73.68	5
t_e	72.27	5
t_e (d, e)	72.22	5
ΔHv/T_e	18.64	5
d 5 to	87.89	5
e 115 °C	0.1458	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	273.	5
P_c mm	19410.	5
PV/RT 25°C	0.9970	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9424	5
t_c		
ΔHc kcal/m	1041.82	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	23.20	5
30	22.10	5
40	21.03	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	130.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

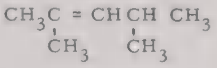
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 59

NAME	2, 4-Dimethyl-2-pentene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}		Molecular Weight 98.182	



$$CH_3\underset{CH_3}{C} = CH\underset{CH_3}{CH}\ CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	83.44	2
100	26.25	4
30	1.39	4
10	-17.33	5
1	-47.94	5
Pressure		
mm 25°C	94.68	5
t_e	959.2	5
Density		
g/ml 20°C	0.6955	2
d_4^t 25	0.6912	2
30	0.6869	4
a	0.7126	4
b	-0.0_384	4
Ref. Index		
n_D 20°C	1.4040	2
25	1.4013	2
30	1.3986	4
"C"	0.7741	4
MR (Obs.)	34.52	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0562	2
Dielectric		
A -10 to	6.71947	4
B 118 °C	1176.32	4
C	223.	4
A* -10 to	1.13362	5
B* 105 °C	1099.06	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 118 to	7.1369	5
Bc t_c °C	1478.	5
Cc	264.	5
Cryos. A°		
consts. B°		
t_e °C	91.73	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2398	5
BP	0.0456	4
t_e	0.0381	5
30 mm	0.6196	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.72	5
30 mm	82.09	5
BP	70.30	5
t_e	69.15	5
t_e (d, e)	69.11	5
ΔHv/T_e	18.60	5
d -10 to	82.29	5
e 105 °C	0.1437	5
d' to		
e' °C		
d_c g/ml	0.208	5
v_c ml/g	4.81	5
t_c °C	248.	5
P_c mm	17809.	5
PV/RT		
25°C	0.9930	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9447	5
t_c	0.259	5
ΔHc kcal/m	1041.34	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	19.34	5
γ 30	18.38	5
40	17.44	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	128.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

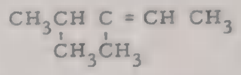
REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 60

NAME	3,4-Dimethyl-cis-2-pentene	STRUCTURAL FORMULA  $CH_3\underset{CH_3}{CH}\ \underset{CH_3}{C} = CH\ CH_3$
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}
Molecular Weight 98.182		

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	87.	2
100	29.43	4
30	4.36	4
10	-14.5	5
1	-45.4	5
Pressure		
mm 25°C	82.28	5
t_e	969.4	5
Density		
g/ml 20°C	0.713	2
d_4^t 25	0.709	2
30	0.705	4
a	0.7290	4
b	-0.0_378	4
Ref. Index		
n_D 20°C	1.407	2
25	1.404	2
30	1.401	4
"C"	0.7604	4
MR (Obs.)	33.9	2
MR (Calc.)	34.059	5
(nD-d/2)	1.050	2
Dielectric		
A -5 to	6.74284	4
B 124 °C	1197.23	4
C	223.	4
A* -5 to	1.15215	5
B* 105 °C	1118.91	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 124 to	7.1618	5
Bc t_c °C	1506.	5
Cc	265.	5
Cryos. A°		
consts. B°		
t_e °C	95.72	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2711	5
BP	0.0459	4
t_e	0.0380	5
30 mm	0.6251	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.23	5
30 mm	83.15	5
BP	71.33	5
t_e	70.12	5
t_e (d, e)	70.09	5
$\Delta Hv/T_e$	18.66	5
d -5 to	83.78	5
e 105 °C	0.1430	5
d' to		
e' °C		
d_c g/ml	0.216	5
v_c ml/g	4.63	5
t_c °C	256.	5
P_c mm	18790.	5
PV/RT		
25°C	0.9944	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9444	5
t_c	0.259	5
ΔHc kcal/m	1042.02	2
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.37	5
γ 30	20.40	5
40	19.45	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

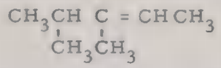
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 61

NAME	3, 4-Dimethyl-trans-2-pentene	STRUCTURAL FORMULA



$CH_3CH(CH_3)C(CH_3)=CHCH_3$

Mole % Pur.		Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182	

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	87.	2
100	29.43	4
30	4.36	5
10	-14.53	4
1	-45.44	4
Pressure		
mm 25°C	82.28	4
t_e	969.36	4
Density		
g/ml 20°C	0.713	2
d_4^t 25	0.709	2
30	0.7050	4
a	0.7290	4
b	-0.0_378	4
Ref. Index		
n_D 20°C	1.407	2
25	1.404	2
30	1.402	4
"C"	0.7604	5
MR (Obs.)	33.9	2
MR (Calc.)	34.059	5
(nD-d/2)	1.050	2
Dielectric		
A -5 to	6.74284	4
B 124 °C	1197.23	4
C	223.	4
A* -5 to	1.15215	5
B* 105 °C	1118.91	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 124 to	7.1618	5
Bc t_c °C	1505.5	5
Cc	265.11	5
Cryos. A°		
consts. B°		
t_e °C	95.72	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2711	5
BP	0.0459	4
t_e	0.03801	5
30 mm	0.6251	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.23	5
30 mm	83.15	5
BP	71.33	5
t_e	70.12	5
t_e (d, e)	70.09	5
$\Delta Hv/T_e$	18.66	5
d -5 to	83.78	5
e 96 °C	0.1430	5
d' to		
e' °C		
d_c g/ml	0.216	5
v_c ml/g	4.633	5
t_c °C	256.	5
P_c mm	18790.	5
PV/RT		
25°C	0.9939	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9444	5
t_c	0.259	5
ΔHc kcal/m	1042.02	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.37	5
γ 30	20.40	5
40	19.45	5
Parachor [P]		
20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

$T_R = 0.75\,T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

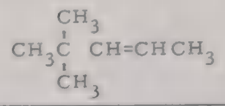
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 62

NAME	4,4-Dimethyl-cis-2-pentene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182	



$CH_3C(CH_3)_2\ CH{=}CHCH_3$

		Ref.
F.P. °C	-135.46	2
F.P. 100%		
B.P. °C		
760 mm	80.42	2
100	23.53	4
30	-1.19	4
10	-19.80	5
1	-50.21	5
Pressure mm 25°C	106.6	5
t_e	950.6	5
Density g/ml 20°C	0.6996	2
d_4^t 25	0.6952	2
30	0.6908	4
a	0.7172	4
b	-0.0_386	4
Ref. Index n_D 20°C	1.4024	2
25	1.3998	2
30	1.3970	4
"C"	0.7667	4
MR (Obs.)	34.20	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0526	2
Dielectric		
A -10 to	6.71324	4
B 115 °C	1166.67	4
C	224.	4
A* -10 to	1.13040	5
B* 95 °C	1089.71	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 115 to	7.1319	5
Bc t_c °C	1467.	5
Cc	265.	5
Cryos. A° consts. B°		
t_e °C	88.34	5

		Ref.
dt/dP °C/mm		
25°C	0.2165	5
BP	0.0454	4
t_e	0.0382	5
30 mm	0.6160	5
ΔHm cal/g		
ΔHv cal/g		
25°C	77.16	5
30 mm	81.03	5
BP	69.46	5
t_e	68.37	5
t_e (d, e)	68.34	5
ΔHv/T_e	18.57	5
d -10 to	80.87	5
e 88 °C	0.1418	5
d' to		
e' °C		
d_c g/ml	0.208	5
v_c ml/g	4.819	5
t_c °C	244.	5
P_c mm	17725.	5
PV/RT		
25°C	0.9915	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9450	5
t_c	0.260	5
ΔHc kcal/m	1042.05	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	19.79	5
γ 30	18.79	5
40	17.80	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt. u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

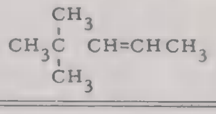
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 63

NAME	4, 4-Dimethyl-trans-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CHCH_3$$

		Ref.
F.P. °C	-115.235	2
F.P. 100%		
B.P. °C		
760 mm	76.75	2
100	20.24	4
30	-4.27	4
10	-22.7	5
1	-52.8	5
Pressure mm 25°C	122.9	5
t_e	940.6	5
Density g/ml 20°C	0.6889	2
d^t_4 25	0.6845	2
30	0.6801	4
a	0.7066	4
b	-0.0386	4
Ref. Index n_D 20°C	1.3982	2
25	1.3953	2
30	1.3928	4
"C"	0.7709	4
MR (Obs.)	34.41	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0538	2
Dielectric		
A -10 to	6.68799	4
B 110 °C	1145.0	4
C	224.	4
A* -10 to	1.10939	5
B* 95 °C	1069.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 110 to	7.1055	5
Bc t_c °C	1440.	5
Cc	265.	5
Cryos. A°		
consts. B°		
t_e °C	84.25	5

		Ref.
dt/dP °C/mm		
25°C	0.1913	5
BP	0.0451	4
t_e	0.0383	5
30 mm	0.6105	5
ΔHm cal/g		
ΔHv cal/g		
25°C	75.80	5
30 mm	79.93	5
BP	68.43	5
t_e	67.40	5
t_e (d, e)	67.37	5
ΔHv/T_e	18.51	5
d -10 to	79.33	5
e 95 °C	0.1420	5
d' to		
e' °C		
d_c g/ml	0.203	5
v_c ml/g	4.928	5
t_c °C	237.	5
P_c mm	17097.	5
PV/RT		
25°C	0.9908	5
30 mm	1.0000	5
BP	0.9525	5
t_e	0.9458	5
t_c	0.260	5
ΔHc kcal/m	1041.05	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	18.60	5
γ 30	17.64	5
40	16.69	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

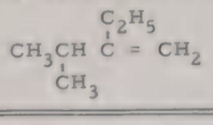
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 64

NAME	2-Ethyl-3-methyl-1-butene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{14}	Molecular Weight 98.182



$CH_3CH(CH_3)C(C_2H_5)=CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	89.	2
100	31.23	4
30	6.07	4
10	-12.9	5
1	-43.9	5
Pressure mm 25°C	75.95	5
t_e	975.1	5
Density g/ml 20°C	0.715	2
d_4^t 25	0.711	2
30	0.707	4
a	0.7310	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.410	2
25	1.407	2
30	1.405	4
"C"	0.7635	4
MR (Obs.)	34.0	2
MR (Calc.)	34.059	5
(nD-d/2)	1.052	2
Dielectric		
A -5 to 125 °C	6.74138	4
B	1200.64	4
C	222.	4
A* -5 to 110 °C	1.14911	5
B*	1122.32	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 125 to t_c °C	7.1591	5
Bc	1509.	5
Cc	264.	5
Cryos. consts. A°		
B°		
t_e °C	97.97	5

		Ref.
dt/dP °C/mm		
25°C	0.2906	5
BP	0.0460	4
t_e	0.0380	5
30 mm	0.6272	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.09	5
30 mm	83.90	5
BP	71.87	5
t_e	70.61	5
t_e (d, e)	70.57	5
$\Delta Hv/T_e$	18.68	5
d -5 to 110 °C	84.78	5
e	0.1450	5
d' to °C		
e'		
d_c g/ml	0.216	5
v_c ml/g	4.624	5
t_c °C	259.	5
P_c mm	18932.	5
PV/RT		
25°C	0.9949	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9442	5
t_c	0.259	5
ΔHc kcal/m	1043.42	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.61	5
30	20.64	5
40	19.68	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	125.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

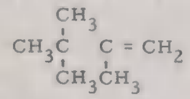
PURIFICATION: API

LITERATURE REFERENCES:

No. 65

NAME	2, 3, 3-Trimethyl-1-butene
Mole % Pur.	
Ref.	
Molecular Formula	C_7H_{14}
Molecular Weight	98.182

STRUCTURAL FORMULA



$$CH_3\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}}\;\underset{\displaystyle CH_3}{C}=CH_2$$

		Ref.
F.P. °C	-109.85	2
F.P. 100%		
B.P. °C 760 mm	77.87	2
100	21.26	4
30	-3.31	4
10	-21.79	5
1	-51.98	5
Pressure mm 25°C	117.6	5
t_e	943.3	5
Density g/ml 20°C	0.7050	2
d_4^t 25	0.7005	2
30	0.6960	4
a	0.7230	4
b	-0.0_388	4
Ref. Index n_D 20°C	1.4029	2
25	1.4000	2
30	1.3973	4
"C"	0.7617	4
MR (Obs.)	33.98	2
MR (Calc.)	34.059	5
(nD-d/2)	1.0504	2
Dielectric		
A -10 to 115 °C	6.69701	4
B	1152.0	4
C	224.	4
A* -10 to 95 °C	1.11770	5
B*	1075.8	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 115 to t_c °C	7.1153	5
Bc	1450.	5
Cc	265.	5
Cryos. consts. A°		
B°		
t_e °C	85.48	5

		Ref.
dt/dP °C/mm 25°C	0.1987	5
BP	0.0452	4
t_e	0.0383	5
30 mm	0.6121	5
ΔHm cal/g		
ΔHv cal/g 25°C	76.23	5
30 mm	80.29	5
BP	68.75	5
t_e	67.70	5
t_e (d, e)	67.67	5
$\Delta Hv/T_e$	18.53	5
d -10 to 95 °C	79.82	5
e	0.1422	5
d' to °C		
e'		
d_c g/ml	0.209	5
v_c ml/g	4.789	5
t_c °C	241.	5
P_c mm	17662.	5
PV/RT 25°C	0.9903	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9452	5
t_c	0.259	5
ΔHc kcal/m	1042.08	2
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	20.40	5
30	19.35	5
40	18.32	5
Parachor [P] 20°C		
30		
40		
Sugd.	296.2	5
Exp. L.l.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 66

NAME	1-Octene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208
			$CH_3(CH_2)_5CH{=}CH_2$

		Ref.
F.P. °C	-101.736	2
F.P. 100%		
B.P. °C		
760 mm	121.280	2
100	61.630	2
30	35.33	4
10	15.38	2
1	-17.5	5
Pressure		
mm 25°C	17.38	5
t_e	1064.	5
Density		
g/ml 20°C	0.71492	2
d_4^t 25	0.71085	2
30	0.70677	4
a	0.73118	4
b	-0.0_3809	4
Ref. Index		
n_D 20°C	1.40870	2
25	1.40620	2
30	1.40376	4
"C"	0.7613	4
MR (Obs.)	38.778	2
MR (Calc.)	38.677	5
(nD-d/2)	1.05124	2
Dielectric		
A 0 to	6.93263	2
B 151 °C	1353.5	2
C	212.764	2
A* 25 to	1.37023	5
B* 140 °C	1272.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 151 to	7.3370	5
Bc t_c °C	1664.	5
Cc	252.	5
Cryos. A°		
consts. B°		
t_e °C	133.78	5

		Ref.
dt/dP		
°C/mm		
25°C	1.0436	5
BP	0.04711	4
t_e	0.03622	5
30 mm	0.6583	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.82	5
30 mm	85.36	5
BP	72.70	5
t_e	70.95	5
t_e (d, e)	70.86	5
$\Delta Hv/T_e$	19.56	5
d 25 to	90.56	5
e 134 °C	0.1473	5
d' to		
e' °C		
d_c g/ml	0.240	5
v_c ml/g	4.173	5
t_c °C	292.	5
P_c mm	19197.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9396	5
t_c	0.255	5
ΔHc kcal/m	1194.97	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	0.382	2
60	0.316	2
80	0.270	2
100	0.234	2
B^v 20 to	429.70	5
A^v 60 °C	$\bar{2}.20988$	5
(B^v) 60 to	409.49	5
(A^v) 110 °C	$\bar{2}.27184$	5
c_p liq. °K		
c_p vap. 300°K	0.38117	2
400	0.48045	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0250	4
n 600 °K	0.0013	4
o	-0.0_649	4
m' 700 to	0.1070	4
n' 1000 °K	0.0011	4
o'	-0.0_638	4
Surface tension		
dynes/cm. 20°C	20.79	5
γ 30	19.86	5
40	18.94	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	116.8	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 67

NAME	cis-2-Octene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208
			$CH_3(CH_2)_4CH{=}CHCH_3$

		Ref.
F.P. °C	-100.2	2
F.P. 100%		
B.P. °C		
760 mm	125.64	2
100	64.12	4
30	37.93	4
10	16.52	5
1	-17.84	5
Pressure mm 25°C	16.067	5
t_e	1076.47	5
Density g/ml 20°C	0.7243	2
d_4^t 25	0.7201	2
30	0.7159	4
a	0.7411	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4150	2
25	1.4125	2
30	1.4099	4
"C"	0.7624	4
MR (Obs.)	38.794	4
MR (Calc.)	38.677	5
(nD-d/2)	1.0529	2
Dielectric		
A 38 to	6.87711	5
B 157 °C	1361.3	5
C	215.	4
A* 38 to	1.30761	5
B* 150 °C	1277.39	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.26268	5
B' 38 °C	1562.64	5
C'	233.	5
A'* 20 to	1.65772	5
B'* 38 °C	1463.16	5
Ac 157 to	7.28738	5
Bc t_c °C	1683.60	5
Cc	256.69	5
Cryos. consts. A°		
B°		
t_e °C	139.03	5

		Ref.
dt/dP °C/mm		
25°C	1.1514	5
BP	0.04870	5
t_e	0.03714	5
30 mm	0.6758	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.12	5
30 mm	84.10	5
BP	71.86	5
t_e	70.08	5
t_e (d, e)	70.01	5
$\Delta Hv/T_e$	19.08	5
d 38 to	89.23	5
e 140 °C	0.1382	5
d' 20 to	87.21	5
e' 38 °C	0.0838	5
d_c g/ml	0.25	5
v_c ml/g	4.006	5
t_c °C	300.	5
P_c mm	18399.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9386	5
t_c	0.254	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	21.91	1
30	20.90	1
40	19.93	1
Parachor [P] 20°C	335.21	4
30	335.23	4
40	335.21	4
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	118.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 68

NAME	trans-2-Octene		STRUCTURAL FORMULA
			$CH_3(CH_2)_4CH{=}CHCH_3$
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C	-87.7	2
F.P. 100%		
B.P. °C		
760 mm	125.0	2
100	63.55	4
30	36.56	4
10	16.02	5
1	-18.28	5
Pressure mm 25°C	16.52	5
t_e	1075.	5
Density g/ml 20°C	0.7199	2
d_4^t 25	0.7157	2
30	0.7115	4
a	0.7367	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4132	2
25	1.4107	2
30	1.4081	4
"C"	0.7639	4
MR (Obs.)	38.88	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0533	2
Dielectric		
A 37 to	6.87364	4
B 156 °C	1357.6	4
C	215.	4
A* 37 to	1.30491	5
B* 148 °C	1273.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.25977	5
B' 37 °C	1558.8	5
C'	233.	5
A'* 25 to	1.66269	5
B'* 37 °C	1461.4	5
Ac 156 to	7.2835	5
Bc t_c °C	1678.	5
Cc	256.	5
Cryos. A° consts. B°		
t_e °C	138.31	5

		Ref.
dt/dP °C/mm		
25°C	1.1227	5
BP	0.0487	4
t_e	0.0372	5
30 mm	0.6748	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.90	5
30 mm	83.94	5
BP	71.69	5
t_e	69.92	5
t_e (d, e)	69.84	5
$\Delta Hv/T_e$	19.06	5
d 37 to	89.00	5
e 138 °C	0.1385	5
d' 25 to	87.00	5
e' 37 °C	0.0836	5
d_c g/ml	0.225	5
v_c ml/g	4.44	5
t_c °C	299.	5
P_c mm	18206.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9386	5
t_c	0.254	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension dynes/cm. γ 20°C	21.38	5
30	20.39	5
40	19.44	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	120.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 69

NAME	cis-3-Octene			STRUCTURAL FORMULA $CH_3(CH_2)_3CH{=}CHCH_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	122.9	2
100	61.66	4
30	34.76	4
10	14.28	5
1	-19.91	5
Pressure mm 25°C	18.16	5
t_e	1069.	5
Density g/ml 20°C	0.721	2
d^t_4 25	0.717	2
30	0.713	4
a	0.7370	4
b	-0.0_380	4
Ref. Index n_D 20°C	1.4135	2
25	1.4111	2
30	1.4087	4
"C"	0.7633	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.053	2
Dielectric		
A 35 to	6.87423	4
B 155 °C	1353.4	4
C	216.	4
A* 35 to	1.30707	5
B* 146 °C	1269.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.26164	5
B' 35 °C	1554.6	5
C'	234.	5
A'* 25 to	1.65709	5
B'* 35 °C	1454.9	5
Ac 155 to	7.2856	5
Bc t_c °C	1675.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	135.95	5

		Ref.
dt/dP °C/mm		
25°C	1.0317	5
BP	0.0485	4
t_e	0.0372	5
30 mm	0.6726	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.02	5
30 mm	83.24	5
BP	71.17	5
t_e	69.46	5
t_e (d, e)	69.39	5
$\Delta Hv/T_e$	19.05	5
d 35 to	87.99	5
e 136 °C	0.1369	5
d' 25 to	86.04	5
e' 35 °C	0.0807	5
d_c g/ml	0.228	5
v_c ml/g	4.393	5
t_c °C	297.	5
P_c mm	18324.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9388	5
t_c	0.254	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	21.51	5
30	20.56	5
40	19.64	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 70

NAME	trans-3-Octene		STRUCTURAL FORMULA $CH_3(CH_2)_3CH{=}CH\,CH_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C	-110.	2
F.P. 100%		
B.P. °C		
760 mm	123.3	2
100	62.01	4
30	35.09	4
10	14.59	5
1	-19.63	5
Pressure mm 25°C	17.85	5
t_e	1070.	5
Density g/ml 20°C	0.7152	2
d_4^t 25	0.7110	2
30	0.7068	4
a	0.7320	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4126	2
25	1.4102	2
30	1.4075	4
"C"	0.7679	4
MR (Obs.)	39.09	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0550	2
Dielectric		
A 35 to 153 °C	6.87632	4
B	1355.7	4
C	216.	4
A* 35 to 146 °C	1.30868	5
B*	1271.9	5
K		
c		
t_k to t_x °C		
A' 25 to 35 °C	7.26338	5
B'	1557.0	5
C'	234.	5
A'* 25 to	1.65858	5
B'* 35 °C	1457.2	5
Ac 153 to t_c °C	7.2873	5
Bc	1676.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	136.40	5

		Ref.
dt/dP °C/mm		
25°C	1.0480	5
BP	0.0485	4
t_e	0.0372	5
30 mm	0.6732	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.17	5
30 mm	83.34	5
BP	71.27	5
t_e	69.54	5
t_e (d, e)	69.47	5
ΔHv/T_e	19.05	5
d 35 to 140 °C	88.14	5
e	0.1369	5
d' 25 to 35 °C	86.17	5
e'	0.0807	5
d_c g/ml	0.225	5
v_c ml/g	4.44	5
t_c °C	295.	5
P_c mm	17998.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9388	5
t_c	0.254	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v A^v to °C		
(B^v) (A^v) to °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	20.83	5
30	19.86	5
40	18.92	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 71

NAME	cis-4-Octene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	$CH_3(CH_2)_2CH=CH(CH_2)_2CH_3$

		Ref.
F.P. °C	-118.7	2
F.P. 100%		
B.P. °C		
760 mm	122.54	2
100	61.33	4
30	34.45	4
10	13.98	5
1	-20.18	5
Pressure		
mm 25°C	18.46	5
t_e	1068.	5
Density		
g/ml 20°C	0.7212	2
d_4^t 25	0.7170	2
30	0.7128	4
a	0.7380	4
b	-0.0_383	4
Ref. Index		
n_D 20°C	1.4148	2
25	1.4124	2
30	1.4097	4
"C"	0.7653	4
MR (Obs.)	38.95	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0542	2
Dielectric		
A 35 to	6.87149	4
B 153 °C	1351.0	4
C	216.	4
A* 35 to	1.30477	5
B* 146 °C	1267.4	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.25919	5
B' 35 °C	1552.2	5
C'	234.	5
A'* 25 to	1.65489	5
B'* 35 °C	1452.5	5
Ac 153 to	7.2826	5
Bc t_c °C	1672.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	135.54	5

		Ref.
dt/dP °C/mm		
25°C	1.0168	5
BP	0.0485	4
t_e	0.0372	5
30 mm	0.6721	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.89	5
30 mm	83.13	5
BP	71.07	5
t_e	69.36	5
t_e (d, e)	69.29	5
ΔHv/T_e	19.04	5
d 35 to	87.85	5
e 136 °C	0.1369	5
d' 25 to	85.91	5
e' 35 °C	0.0806	5
d_c g/ml	0.226	5
v_c ml/g	4.42	5
t_c °C	295.	5
P_c mm	18155.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9388	5
t_c	0.254	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.53	5
γ 30	20.54	5
40	19.58	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	120.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 72

NAME	trans-4-Octene		STRUCTURAL FORMULA $CH_3(CH_2)_2CH=CH(CH_2)_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C	-93.810	2
F.P. 100%		
B.P. °C		
760 mm	122.25	2
100	61.06	4
30	34.19	4
10	13.74	5
1	-20.40	5
Pressure mm 25°C	18.71	5
t_e	1067.	5
Density g/ml 20°C	0.7141	2
d_4^t 25	0.7099	2
30	0.7057	4
a	0.7309	4
b	-0.0383	4
Ref. Index n_D 20°C	1.4118	2
25	1.4093	2
30	1.4068	4
"C"	0.7676	4
MR (Obs.)	39.08	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0548	2
Dielectric		
A 34 to	6.86904	4
B 152 °C	1349.0	4
C	216.	4
A* 34 to	1.30268	5
B* 145 °C	1265.5	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.25696	5
B' 34 °C	1550.1	5
C'	234.	5
A'* 20 to	1.65288	5
B'* 34 °C	1450.5	5
Ac 152 to	7.2798	5
Bc t_c °C	1668.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	135.22	5

		Ref.
dt/dP °C/mm		
25°C	1.0047	5
BP	0.0485	4
t_e	0.0372	5
30 mm	0.6717	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.78	5
30 mm	83.04	5
BP	70.98	5
t_e	69.27	5
t_e (d, e)	69.20	5
$\Delta Hv/T_e$	19.03	5
d 34 to	87.72	5
e 140 °C	0.1370	5
d' 20 to	85.79	5
e' 34 °C	0.0805	5
d_c g/ml	0.223	5
v_c ml/g	4.48	5
t_c °C	294.	5
P_c mm	17879.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9389	5
t_c	0.254	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g to °K h		
f' g' to °K h'		
m n to °K o		
m' n' to °K o'		
Surface tension dynes/cm. 20°C	20.70	5
γ 30	19.73	5
40	18.80	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	122.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

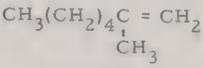
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 73

NAME	2-Methyl-1-heptene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$CH_3(CH_2)_4\underset{CH_3}{C}=CH_2$

		Ref.
F.P. °C	-90.0	2
F.P. 100%		
B.P. °C		
760 mm	119.3	2
100	58.44	4
30	31.74	4
10	11.43	5
1	-22.45	5
Pressure mm 25°C	21.24	5
t_e	1058.	5
Density g/ml d^t_4 20°C	0.7205	2
25	0.7164	2
30	0.7123	4
a	0.7369	4
b	$-0.0_{3}81$	4
Ref. Index n_D 20°C	1.4123	2
25	1.4098	2
30	1.4073	4
"C"	0.7617	4
MR (Obs.)	38.78	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0521	2
Dielectric		
A 31 to 150 °C	6.85239	4
B	1331.7	4
C	216.	4
A* 31 to 135 °C	1.28966	5
B*	1249.0	5
K		
c		
t_k to		
t_x °C		
A' 20 to 31 °C	7.24294	5
B'	1532.2	5
C'	234.	5
A'* 20 to	1.64083	5
B'* 31 °C	1433.1	5
Ac 150 to t_c °C	7.2629	5
Bc	1649.	5
Cc	257.	5
Cryos. consts. A°		
B°		
t_e °C	131.90	5

		Ref.
dt/dP °C/mm		
25°C	0.8953	5
BP	0.0482	4
t_e	0.0373	5
30 mm	0.6672	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.81	5
30 mm	82.27	5
BP	70.25	5
t_e	68.59	5
t_e (d, e)	68.52	5
ΔHv/T_e	19.00	5
d 31 to 135 °C	86.63	5
e	0.1373	5
d' 20 to 31 °C	84.80	5
e'	0.0796	5
d_c g/ml	0.226	5
v_c ml/g	4.43	5
t_c °C	291.	5
P_c mm	17989.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9391	5
t_c	0.254	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.45	5
30	20.48	5
40	19.54	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

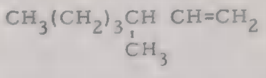
PURIFICATION: API

LITERATURE REFERENCES:

No. 74

NAME	3-Methyl-1-heptene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3(CH_2)_3\underset{CH_3}{CH}\ CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	111.	2
100	50.98	4
30	24.69	4
10	4.82	5
1	-27.81	5
Pressure mm 25°C	30.47	5
t_e	1035.	5
Density g/ml 20°C	0.711	2
d_4^t 25	0.707	2
30	0.703	4
a	0.727	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.406	2
25	1.404	2
30	1.402	4
"C"	0.7607	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A 20 to	6.82779	4
B 140 °C	1298.6	4
C	218.	4
A* 20 to	1.27254	5
B* 125 °C	1216.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 140 to	7.2396	5
Bc t_c °C	1610.	5
Cc	259.	5
Cryos. consts. A°		
B°		
t_e °C	122.59	5

		Ref.
dt/dP °C/mm 25°C	0.6480	5
BP	0.0476	4
t_e	0.0375	5
30 mm	0.6566	5
ΔHm cal/g		
ΔHv cal/g 25°C	79.74	5
30 mm	79.78	5
BP	68.20	5
t_e	66.70	5
t_e (d, e)	66.64	5
$\Delta Hv/T_e$	18.91	5
d 20 to	83.09	5
e 130 °C	0.1342	5
d' to		
e' °C		
d_c g/ml	0.220	5
v_c ml/g	4.54	5
t_c °C	278.	5
P_c mm	17269.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9403	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	20.34	5
30	19.41	5
40	18.50	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

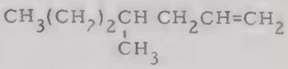
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 75

NAME	4-Methyl-1-heptene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208		



$$CH_3(CH_2)_2\underset{CH_3}{CH}\,CH_2CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.8	2
100	52.59	4
30	26.20	4
10	6.13	5
1	-27.34	5
Pressure mm 25°C	28.23	5
t_e	1041.	5
Density g/ml 20°C	0.717	2
d_4^t 25	0.713	2
30	0.709	4
a	0.7330	4
b	-0.0_379	4
Ref. Index n_D 20°C	1.410	2
25	1.408	2
30	1.406	4
"C"	0.7614	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 20 to 143 °C	6.88388	4
B	1309.3	4
C	218.	4
A* 20 to 130 °C	1.28143	5
B*	1227.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 143 to t_c °C	7.2514	5
Bc	1624.	5
Cc	259.	5
Cryos. A° consts. B°		
t_e °C	124.61	5

		Ref.
dt/dP °C/mm		
25°C	0.6943	5
BP	0.0478	4
t_e	0.0374	5
30 mm	0.6593	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.33	5
30 mm	80.26	5
BP	68.66	5
t_e	67.14	5
t_e (d, e)	67.08	5
ΔHv/T_e	18.94	5
d 20 to	83.77	5
e 130 °C	0.1339	5
d' to		
e' °C		
d_c g/ml	0.224	5
v_c ml/g	4.47	5
t_c °C	281.	5
P_c mm	17639.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.03	5
γ 30	20.10	5
40	19.19	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

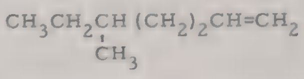
PURIFICATION: API

LITERATURE REFERENCES:

No. 76

NAME	5-Methyl-1-heptene				
Mole % Pur.		Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	

STRUCTURAL FORMULA



$CH_3CH_2CH(CH_3)(CH_2)_2CH=CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	113.3	2
100	53.09	4
30	26.70	4
10	6.63	5
1	-26.83	5
Pressure		
mm 25°C	27.51	5
t_e	1042.0	5
Density		
g/ml 20°C	0.7164	2
d_4^t 25	0.7122	2
30	0.7080	4
a	0.7332	4
b	-0.0_383	4
Ref. Index		
n_D 20°C	1.4094	2
25	1.4069	2
30	1.4044	4
"C"	0.7610	4
MR (Obs.)	38.76	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0512	2
Dielectric		
A 20 to	6.83861	4
B 143 °C	1309.1	4
C	217.47	4
A* 20 to	1.28101	5
B* 130 °C	1227.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 143 to	7.2501	5
Bc t_c °C	1622.	5
Cc	258.	5
Cryos. A° consts. B°		
t_e °C	125.16	5

		Ref.
dt/dP °C/mm		
25°C	0.7096	5
BP	0.0478	4
t_e	0.0374	5
30 mm	0.6593	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.76	5
30 mm	80.53	5
BP	68.84	5
t_e	67.29	5
t_e (d, e)	67.24	5
ΔHv/T_e	18.96	5
d 15 to	84.13	5
e 135 °C	0.1350	5
d' to		
e' °C		
d_c g/ml	0.222	5
v_c ml/g	4.50	5
t_c °C	281.	5
P_c mm	17537.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.03	5
γ 30	20.10	5
40	19.19	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

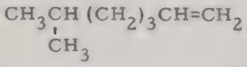
REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 77

NAME	6-Methyl-1-heptene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	 $CH_3\underset{CH_3}{CH}(CH_2)_3CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	113.2	2
100	54.34	4
30	28.36	4
10	8.37	5
1	-24.8	5
Pressure mm 25°C	25.25	5
t_e	1041.	5
Density g/ml 20°C	0.7120	2
d^t_4 25	0.7079	2
30	0.7038	4
a	0.7284	4
b	-0.0_381	4
Ref. Index n_D 20°C	1.4070	2
25	1.4045	2
30	1.4018	4
"C"	0.7610	4
MR (Obs.)	38.79	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0510	2
Dielectric		
A 20 to	6.94874	5
B 142 °C	1345.2	5
C	217.49	5
A* 20 to	1.39165	5
B* 135 °C	1263.4	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.37919	5
B' 20 °C	1554.37	5
C'	235.49	5
A'* 10 to	1.78823	5
B'* 20 °C	1457.8	5
Ac 142 to	7.3591	5
Bc t_c °C	1656.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	124.7	5

		Ref.
dt/dP °C/mm		
25°C	0.7511	5
BP	0.0465	4
t_e	0.0363	5
30 mm	0.6505	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.00	5
30 mm	82.53	5
BP	70.73	5
t_e	69.19	5
t_e (d, e)	69.13	5
ΔHv/T_e	19.51	5
d 20 to	86.48	5
e 125 °C	0.1391	5
d' to		
e' °C		
d_c g/ml	0.240	5
v_c ml/g	4.167	5
t_c °C	280.	5
P_c mm	18887.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9404	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g to °K h		
f' g' to °K h'		
m n to °K o		
m' n' to °K o'		
Surface tension dynes/cm. γ 20°C	20.45	5
30	19.52	5
40	18.61	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	117.	2
Flash Point °C Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

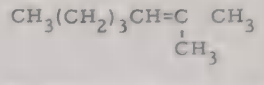
PURIFICATION: API

LITERATURE REFERENCES:

No. 78

NAME	2-Methyl-2-heptene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3(CH_2)_3CH{=}\underset{\displaystyle CH_3}{C}\ CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	122.6	2
100	62.51	4
30	35.98	4
10	15.72	5
1	-18.21	5
Pressure		
mm 25°C	16.90	5
t_e	1067.3	5
Density		
g/ml 20°C	0.7241	2
d_4^t 25	0.7200	2
30	0.7159	4
a	0.7405	4
b	-0.0_382	4
Ref. Index		
n_D 20°C	1.4170	2
25	1.4145	2
30	1.4120	4
"C"	0.7661	4
MR (Obs.)	38.97	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0550	2
Dielectric		
A 36 to	6.95927	5
B 154 °C	1379.8	5
C	215.7	5
A* 36 to	1.39313	5
B* 145 °C	1296.4	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.35134	5
B' 36 °C	1584.2	5
C'	233.7	5
A'* 20 to	1.74623	5
B'* 36 °C	1484.4	5
Ac 154 to	7.3692	5
Bc t_c °C	1699.	5
Cc	256.	5
Cryos. A°		
consts. B°		
t_e °C	135.29	5

		Ref.
dt/dP		
°C/mm		
25°C	1.0857	5
BP	0.0474	4
t_e	0.0363	5
30 mm	0.6646	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.82	5
30 mm	84.91	5
BP	72.71	5
t_e	70.99	5
t_e (d, e)	70.92	5
$\Delta Hv/T_e$	19.50	5
d 36 to	89.89	5
e 135 °C	0.1408	5
d' 20 to	87.89	5
e' 36 °C	0.0829	5
d_c g/ml	0.242	5
v_c ml/g	4.125	5
t_c °C	296.	5
P_c mm	19555.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9391	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.88	5
γ 30	20.90	5
40	19.95	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

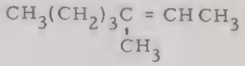
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 79

NAME	3-Methyl-cis-2-heptene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	


$CH_3(CH_2)_3\underset{CH_3}{C} = CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	122.	2
100	62.5	4
30	35.50	4
10	15.27	5
1	-18.61	5
Pressure mm 25°C	17.33	5
t_e	1066.	5
Density g/ml 20°C	0.729	2
d_4^t 25	0.725	2
30	0.721	4
a	0.745	4
b	-0.038	4
Ref. Index n_D 20°C	1.419	2
25	1.417	2
30	1.414	4
"C"	0.7643	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.055	2
Dielectric		
A 35 to	6.95905	5
B 154 °C	1377.7	5
C	215.82	5
A* 35 to	1.39354	5
B* 145 °C	1294.5	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35168	5
B' 35 °C	1582.1	5
C'	233.82	5
A'* 25 to	1.74680	5
B'* 35 °C	1482.4	5
Ac 154 to	7.3693	5
Bc t_c °C	1698.	5
Cc	256.	5
Cryos. A°		
consts. B°		
t_e °C	134.61	5

		Ref.
dt/dP °C/mm		
25°C	1.0610	5
BP	0.0473	4
t_e	0.0363	5
30 mm	0.6637	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.63	5
30 mm	84.76	5
BP	72.59	5
t_e	70.89	5
t_e (d, e)	70.82	5
ΔHv/T_e	19.50	5
d 35 to	89.76	5
e 135 °C	0.1407	5
d' 25 to	87.69	5
e' 35 °C	0.0826	5
d_c g/ml	0.246	5
v_c ml/g	4.072	5
t_c °C	296.	5
P_c mm	19812.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9391	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.48	5
γ 30	21.50	5
40	20.55	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

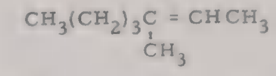
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 80

NAME	3-Methyl-trans-2-heptene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$CH_3(CH_2)_3\underset{CH_3}{C}=CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	122.	2
100	62.5	4
30	35.50	4
10	15.27	5
1	-18.61	5
Pressure mm 25°C	17.33	5
t_e	1066.	5
Density g/ml 20°C	0.729	2
d_4^t 25	0.725	2
30	0.721	4
a	0.745	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.419	2
25	1.417	2
30	1.414	4
"C"	0.7643	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.055	2
Dielectric		
A 35 to	6.95905	5
B 154 °C	1377.7	5
C	215.82	5
A* 35 to	1.39354	5
B* 145 °C	1294.5	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35168	5
B' 35 °C	1582.1	5
C'	233.82	5
A'* 25 to	1.74680	5
B'* 35 °C	1482.4	5
Ac 154 to	7.3693	5
Bc t_c °C	1698.	5
Cc	256.	5
Cryos. A° consts. B°		
t_e °C	134.61	5

		Ref.
dt/dP °C/mm		
25°C	1.0610	5
BP	0.0473	4
t_e	0.0363	5
30 mm	0.6637	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.63	5
30 mm	84.76	5
BP	72.59	5
t_e	70.89	5
t_e (d, e)	70.82	5
$\Delta Hv/T_e$	19.50	5
d 35 to	89.76	5
e 135 °C	0.1407	5
d' 25 to	87.69	5
e' 35 °C	0.0826	5
d_c g/ml	0.246	5
v_c ml/g	4.072	5
t_c °C	296.	5
P_c mm	19812.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9391	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	22.48	5
30	21.50	5
40	20.55	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

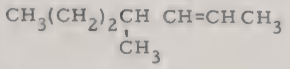
PURIFICATION: API

LITERATURE REFERENCES:

No. 81

NAME	4-Methyl-cis-2-heptene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3(CH_2)_2\underset{CH_3}{CH}\,CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	114.	2
100	55.05	4
30	29.03	4
10	9.17	5
1	-24.09	5
Pressure mm 25°C	24.33	5
t_e	1043.	5
Density g/ml 20°C	0.716	2
d^t_4 25	0.712	2
30	0.708	4
a	0.732	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.410	2
25	1.408	2
30	1.405	4
"C"	0.7624	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 29 to 144 °C	6.95106	5
B	1348.6	5
C	217.34	5
A* 29 to 136 °C	1.39312	5
B*	1266.7	5
K		
c		
t_k to °C		
t_x		
A' 15 to 29 °C	7.35098	5
B'	1552.9	5
C'	235.34	5
A'* 15 to 29 °C	1.74916	5
B'*	1453.3	5
Ac 144 to t_c °C	7.3615	5
Bc	1661.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	125.59	5

		Ref.
dt/dP °C/mm 25°C	0.7791	5
BP	0.0465	4
t_e	0.0363	5
30 mm	0.6516	5
ΔHm cal/g		
ΔHv cal/g 25°C	83.06	5
30 mm	82.76	5
BP	70.93	5
t_e	69.37	5
t_e (d, e)	69.32	5
ΔHv/T_e	19.52	5
d 29 to 126 °C	86.80	5
e	0.1392	5
d' 15 to 29 °C	84.95	5
e'	0.0754	5
d_c g/ml	0.242	5
v_c ml/g	4.126	5
t_c °C	282.	5
P_c mm	19144.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9403	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v A^v to °C		
(B^v) (A^v) to °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	20.92	5
30	19.99	5
40	19.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

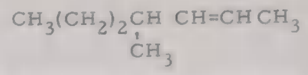
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 82

NAME	4-Methyl-trans-2-heptene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3(CH_2)_2\underset{CH_3}{CH}\ CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	114.	2
100	55.05	4
30	29.03	4
10	9.17	5
1	-24.09	5
Pressure mm 25°C	24.33	5
t_e	1043.	5
Density g/ml 20°C	0.716	2
d_4^t 25	0.712	2
30	0.708	4
a	0.732	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.410	2
25	1.408	2
30	1.405	4
"C"	0.7624	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 29 to	6.95106	5
B 144 °C	1348.6	5
C	217.34	5
A* 29 to	1.39312	5
B* 136 °C	1266.7	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.35098	5
B' 29 °C	1552.9	5
C'	235.34	5
A'* 15 to	1.74916	5
B'* 29 °C	1453.3	5
Ac 144 to	7.3615	5
Bc t_c °C	1661.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	125.59	5

		Ref.
dt/dP °C/mm		
25°C	0.7791	5
BP	0.0465	4
t_e	0.0363	5
30 mm	0.6516	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.06	5
30 mm	82.76	5
BP	70.93	5
t_e	69.37	5
t_e (d, e)	69.32	5
ΔHv/T_e	19.52	5
d 29 to	86.80	5
e 126 °C	0.1392	5
d' 15 to	84.95	5
e' 29 °C	0.0754	5
d_c g/ml	0.242	5
v_c ml/g	4.126	5
t_c °C	282.	5
P_c mm	19144.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9403	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	20.92	5
γ 30	19.99	5
40	19.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

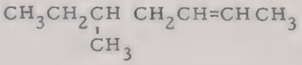
PURIFICATION: API

LITERATURE REFERENCES:

No. 83

NAME	5-Methyl-cis-2-heptene				
Mole % Pur.	Ref.	Molecular Formula	C_8H_{16}	Molecular Weight	112.208

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{CH}\,CH_2CH{=}CHCH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	118.	2
100	58.51	4
30	32.24	4
10	12.19	5
1	-21.38	5
Pressure mm 25°C	20.57	5
t_e	1055.	5
Density g/ml 20°C	0.723	2
d^t_4 25	0.719	2
30	0.715	4
a	0.739	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.414	2
25	1.412	2
30	1.409	4
"C"	0.7620	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.053	2
Dielectric		
A 32 to	6.95360	5
B 149 °C	1362.7	5
C	216.58	5
A* 32 to	1.39140	5
B* 135 °C	1280.0	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.34977	5
B' 32 °C	1567.0	5
C'	234.58	5
A'* 20 to	1.74643	5
B'* 32 °C	1467.3	5
Ac 149 to	7.3640	5
Bc t_c °C	1679.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	130.12	5

		Ref.
dt/dP °C/mm		
25°C	0.9078	5
BP	0.0469	4
t_e	0.0363	5
30 mm	0.6577	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.31	5
30 mm	83.73	5
BP	71.76	5
t_e	70.12	5
t_e (d, e)	70.06	5
$\Delta Hv/T_e$	19.51	5
d 32 to	88.24	5
e 130 °C	0.1397	5
d' 20 to	86.30	5
e' 32 °C	0.0797	5
d_c g/ml	0.244	5
v_c ml/g	4.106	5
t_c °C	289.	5
P_c mm	19479.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9400	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.75	5
γ 30	20.79	5
40	19.86	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

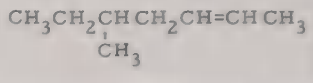
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 84

NAME	5-Methyl-trans-2-heptene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$CH_3CH_2\underset{CH_3}{CH}CH_2CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	118.	2
100	58.51	4
30	32.24	4
10	12.19	5
1	-21.38	5
Pressure mm 25°C	20.57	5
t_e	1055.	5
Density g/ml 20°C	0.723	2
d_4^t 25	0.719	2
30	0.715	4
a	0.739	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.414	2
25	1.412	2
30	1.409	4
"C"	0.7620	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.053	2
Dielectric		
A 32 to 149 °C	6.95360	5
B	1362.7	5
C	216.58	5
A* 32 to 135 °C	1.39140	5
B*	1280.0	5
K		
c		
t_k to t_x °C		
A' 20 to 32 °C	7.34977	5
B'	1567.0	5
C'	234.58	5
A'* 20 to 32 °C	1.74643	5
B'*	1467.3	5
Ac 149 to t_c °C	7.3640	5
Bc	1679.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	130.12	5

		Ref.
dt/dP °C/mm		
25°C	0.9078	5
BP	0.0469	4
t_e	0.0363	5
30 mm	0.6577	5
ΔHm cal/g		
ΔHv cal/g 25°C	84.31	5
30 mm	83.73	5
BP	71.76	5
t_e	70.12	5
t_e (d, e)	70.06	5
ΔHv/T_e	19.51	5
d 32 to 130 °C	88.24	5
e	0.1397	5
d' 20 to 32 °C	86.30	5
e'	0.0797	5
d_c g/ml	0.244	5
v_c ml/g	4.106	5
t_c °C	289.	5
P_c mm	19479.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9400	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	21.75	5
30	20.79	5
40	19.86	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

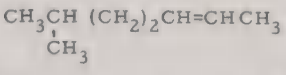
PURIFICATION: API

LITERATURE REFERENCES:

No. 85

NAME	6-Methyl-cis-2-heptene				
Mole % Pur.	Ref.	Molecular Formula	C_8H_{16}	Molecular Weight	112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}(CH_2)_2CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	117.	2
100	57.63	4
30	31.43	4
10	11.43	5
1	-22.07	5
Pressure mm 25°C	21.47	5
t_e	1052.	5
Density g/ml 20°C	0.718	2
d_4^t 25	0.714	2
30	0.710	4
a	0.734	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.412	2
25	1.410	2
30	1.407	4
"C"	0.7638	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.053	2
Dielectric		
A 31 to 147 °C	6.95222	5
B	1358.9	5
C	216.77	5
A* 31 to 139 °C	1.39108	5
B*	1276.4	5
K		
c		
t_k to °C		
t_x		
A' 20 to 31 °C	7.34929	5
B'	1563.2	5
C'	234.77	5
A'* 20 to 31 °C	1.74633	5
B'*	1463.5	5
Ac 147 to t_c °C	7.3625	5
Bc	1674.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	128.99	5

		Ref.
dt/dP °C/mm 25°C	0.8733	5
BP	0.0468	4
t_e	0.0363	5
30 mm	0.6563	5
ΔHm cal/g		
ΔHv cal/g 25°C	83.98	5
30 mm	83.48	5
BP	71.53	5
t_e	69.92	5
t_e (d, e)	69.86	5
ΔHv/T_e	19.51	5
d 31 to 129 °C	87.86	5
e	0.1396	5
d' 20 to 31 °C	85.95	5
e'	0.0788	5
d_c g/ml	0.242	5
v_c ml/g	4.138	5
t_c °C	287.	5
P_c mm	19262.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	21.15	5
30	20.22	5
40	19.31	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.I.%/wt. u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

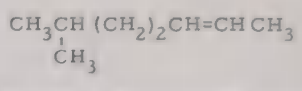
PURIFICATION: API

LITERATURE REFERENCES:

No. 86

NAME	6-Methyl-trans-2-heptene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}(CH_2)_2CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	117.	2
100	57.63	4
30	31.43	4
10	11.43	5
1	-22.07	5
Pressure mm 25°C	21.47	5
t_e	1052.	5
Density g/ml 20°C	0.718	2
d_4^t 25	0.714	2
30	0.710	4
a	0.734	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.412	2
25	1.410	2
30	1.407	4
"C"	0.7638	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.053	2
Dielectric		
A 31 to 147 °C	6.95222	5
B	1358.9	5
C	216.77	5
A* 31 to 139 °C	1.39108	5
B*	1276.4	5
K		
c		
t_k to t_x °C		
A' 20 to 31 °C	7.34929	5
B'	1563.2	5
C'	234.77	5
A'* 20 to 31 °C	1.74633	5
B'*	1463.5	5
Ac 147 to t_c °C	7.3625	5
Bc	1674.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	128.99	5

		Ref.
dt/dP °C/mm		
25°C	0.8733	5
BP	0.0468	4
t_e	0.0363	5
30 mm	0.6563	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.98	5
30 mm	83.48	5
BP	71.53	5
t_e	69.92	5
t_e (d, e)	69.86	5
$\Delta Hv/T_e$	19.51	5
d 31 to 129 °C	87.86	5
e	0.1396	5
d' 20 to 31 °C	85.95	5
e'	0.0788	5
d_c g/ml	0.242	5
v_c ml/g	4.138	5
t_c °C	287.	5
P_c mm	19262.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	21.15	5
30	20.22	5
40	19.31	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

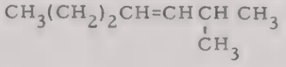
PURIFICATION: API

LITERATURE REFERENCES:

No. 87

NAME	2-Methyl-cis-3-heptene
Mole % Pur.	
Ref.	
Molecular Formula	C_8H_{16}
Molecular Weight	112.208

STRUCTURAL FORMULA



$$CH_3(CH_2)_2CH{=}CH\underset{\displaystyle CH_3}{CH}CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure		
mm 25°C	26.48	5
t_e	1038.	5
Density		
g/ml 20°C	0.706	2
d_4^t 25	0.702	2
30	0.698	4
a	0.722	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.407	2
25	1.405	2
30	1.402	4
"C"	0.7679	4
MR (Obs.)	39.1	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 27 to 140 °C	6.94826	5
B	1341.1	5
C	217.72	5
A* 27 to 130 °C	1.39246	5
B*	1259.5	5
K		
c		
t_k to °C		
t_x		
A' 15 to 27 °C	7.35001	5
B'	1545.3	5
C'	235.72	5
A'* 15 to	1.74894	5
B'* 27 °C	1445.8	5
Ac 140 to t_c °C	7.3585	5
Bc	1651.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP °C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.42	5
30 mm	82.25	5
BP	70.49	5
t_e	68.97	5
t_e (d, e)	68.91	5
$\Delta Hv/T_e$	19.52	5
d 27 to 123 °C	86.05	5
e	0.1390	5
d' 15 to 27 °C	84.19	5
e'	0.0708	5
d_c g/ml	0.239	5
v_c ml/g	4.190	5
t_c °C	278.	5
P_c mm	18716.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension		
dynes/cm. 20°C	19.77	5
γ 30	18.88	5
40	18.01	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

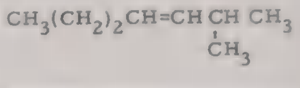
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 88

NAME	2-Methyl-trans-3-heptene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3(CH_2)_2CH{=}CH\underset{\displaystyle CH_3}{CH}CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure mm 25°C	26.48	5
t_e	1038.	5
Density g/ml 20°C	0.706	2
d_4^t 25	0.702	2
30	0.698	4
a	0.722	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.407	2
25	1.405	2
30	1.402	4
"C"	0.7679	4
MR (Obs.)	39.1	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 27 to 140 °C	6.94826	5
B	1341.1	5
C	217.72	5
A* 27 to 130 °C	1.39246	5
B*	1259.5	5
K		
c		
t_k to t_x °C		
A' 15 to 27 °C	7.35001	5
B'	1545.3	5
C'	235.72	5
A'* 15 to 27 °C	1.74894	5
B'*	1445.8	5
Ac 140 to t_c °C	7.3585	5
Bc	1651.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP °C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.42	5
30 mm	82.25	5
BP	70.49	5
t_e	68.97	5
t_e (d, e)	68.91	5
$\Delta Hv/T_e$	19.52	5
d 27 to 123 °C	86.05	5
e	0.1390	5
d' 15 to 27 °C	84.19	5
e'	0.0708	5
d_c g/ml	0.239	5
v_c ml/g	4.190	5
t_c °C	278.	5
P_c mm	18716.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	19.77	5
30	18.88	5
40	18.01	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

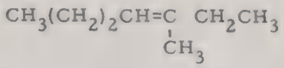
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 89

NAME	3-Methyl-cis-3-heptene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}		Molecular Weight 112.208	



$CH_3(CH_2)_2CH{=}\underset{CH_3}{\underset{|}{C}}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	121.	2
100	61.12	4
30	34.68	4
10	14.50	5
1	-19.31	5
Pressure		
mm 25°C	18.09	5
t_e	1062.7	5
Density		
g/ml 20°C	0.728	2
d^t_4 25	0.724	2
30	0.720	4
a	0.744	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.418	2
25	1.416	2
30	1.413	4
"C"	0.7637	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 35 to	6.95770	5
B 153 °C	1374.0	5
C	216.	5
A* 35 to	1.39323	5
B* 143 °C	1290.9	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35121	5
B' 35 °C	1578.3	5
C'	234.	5
A'* 25 to	1.74671	5
B'* 35 °C	1478.6	5
Ac 153 to	7.3680	5
Bc t_c °C	1693.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	133.48	5

		Ref.
dt/dP		
°C/mm		
25°C	1.0203	5
BP	0.0472	4
t_e	0.0363	5
30 mm	0.6622	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.30	5
30 mm	84.51	5
BP	72.37	5
t_e	70.69	5
t_e (d, e)	70.62	5
ΔHv/T_e	19.50	5
d 35 to	89.38	5
e 133 °C	0.1405	5
d' 25 to	87.35	5
e' 35 °C	0.0819	5
d_c g/ml	0.246	5
v_c ml/g	4.071	5
t_c °C	294.	5
P_c mm	19746.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9392	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.36	5
γ 30	21.38	5
40	20.44	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

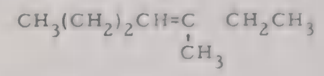
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 90

NAME	3-Methyl-trans-3-heptene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208		



$CH_3(CH_2)_2CH{=}C(CH_3)CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	121.	2
100	61.12	4
30	34.68	4
10	14.50	5
1	-19.31	5
Pressure mm 25°C	18.09	5
t_e	1062.7	5
Density g/ml 20°C	0.728	2
d_4^t 25	0.724	2
30	0.720	4
a	0.744	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.418	2
25	1.416	2
30	1.413	4
"C"	0.7637	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A | 35 to	6.95770	5
B | 153 °C	1374.0	5
C	216.	5
A* | 35 to	1.39323	5
B* | 143 °C	1290.9	5
K		
c		
t_k | to		
t_x | °C		
A' | 25 to	7.35121	5
B' | 35 °C	1578.3	5
C'	234.	5
A'* 25 to	1.74671	5
B'* 35 °C	1478.6	5
Ac | 153 to	7.3680	5
Bc | t_c °C	1693.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	133.48	5

		Ref.
dt/dP °C/mm		
25°C	1.0203	5
BP	0.0472	4
t_e	0.0363	5
30 mm	0.6622	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.30	5
30 mm	84.51	5
BP	72.37	5
t_e	70.69	5
t_e (d, e)	70.62	5
ΔHv/T_e	19.50	5
d | 35 to	89.38	5
e | 133 °C	0.1405	5
d' | 25 to	87.35	5
e' | 35 °C	0.0819	5
d_c g/ml	0.246	5
v_c ml/g	4.071	5
t_c °C	294.	5
P_c mm	19746.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9392	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v | to		
A^v | °C		
(B^v) | to		
(A^v) | °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f | to		
g | °K		
h		
f' | to		
g' | °K		
h'		
m | to		
n | °K		
o		
m' | to		
n' | °K		
o'		
Surface tension dynes/cm. 20°C	22.36	5
γ 30	21.38	5
40	20.44	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

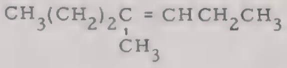
REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 91

NAME	4-Methyl-cis-3-heptene		STRUCTURAL FORMULA  $CH_3(CH_2)_2\underset{CH_3}{C}=CHCH_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	122.	2
100	62.00	4
30	35.50	4
10	15.27	5
1	-18.61	5
Pressure mm 25°C	17.33	5
t_e	1066.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.417	2
25	1.415	2
30	1.412	4
"C"	0.7651	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.055	2
Dielectric		
A 36 to	6.95905	5
B 153 °C	1377.7	5
C	215.82	5
A* 36 to	1.39354	5
B* 145 °C	1294.5	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35168	5
B' 36 °C	1582.1	5
C'	233.82	5
A'* 25 to	1.74680	5
B'* 36 °C	1482.4	5
Ac 153 to	7.3692	5
Bc t_c °C	1697.	5
Cc	256.	5
Cryos. consts. A°		
B°		
t_e °C	134.61	5

		Ref.
dt/dP °C/mm		
25°C	1.0610	5
BP	0.0473	4
t_e	0.0363	5
30 mm	0.6637	5
ΔHm cal/g		
ΔHv cal/g 25°C	85.63	5
30 mm	84.76	5
BP	72.59	5
t_e	70.88	5
t_e (d, e)	70.82	5
ΔHv/T_e	19.50	5
d 36 to	89.76	5
e 135 °C	0.1407	5
d' 25 to	87.69	5
e' 36 °C	0.0826	5
d_c g/ml	0.244	5
v_c ml/g	4.096	5
t_c °C	295.	5
P_c mm	19660.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9391	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	21.99	5
γ 30	21.03	5
40	20.09	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

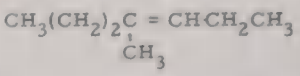
PURIFICATION: API

LITERATURE REFERENCES:

No. 92

NAME	4-Methyl-trans-3-heptene			
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	

STRUCTURAL FORMULA



$CH_3(CH_2)_2\underset{CH_3}{C} = CHCH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	122.	2
100	62.00	4
30	35.50	4
10	15.27	5
1	-18.61	5
Pressure mm 25°C	17.33	5
t_e	1066.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.417	2
25	1.415	2
30	1.412	4
"C"	0.7651	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.055	2
Dielectric		
A 36 to	6.95905	5
B 153 °C	1377.7	5
C	215.82	5
A* 36 to	1.39354	5
B* 145 °C	1294.5	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35168	5
B' 36 °C	1582.1	5
C'	233.82	5
A'* 25 to	1.74680	5
B'* 36 °C	1482.4	5
Ac 153 to	7.3692	5
Bc t_c °C	1697.	5
Cc	256.	5
Cryos. A° consts. B°		
t_e °C	134.61	5

		Ref.
dt/dP °C/mm 25°C	1.0610	5
BP	0.0473	4
t_e	0.0363	5
30 mm	0.6637	5
ΔHm cal/g		
ΔHv cal/g 25°C	85.63	5
30 mm	84.76	5
BP	72.59	5
t_e	70.88	5
t_e (d, e)	70.82	5
ΔHv/T_e	19.50	5
d 36 to	89.76	5
e 135 °C	0.1407	5
d' 25 to	87.69	5
e' 36 °C	0.0826	5
d_c g/ml	0.244	5
v_c ml/g	4.096	5
t_c °C	295.	5
P_c mm	19660.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9391	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.99	5
30	21.03	5
40	20.09	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

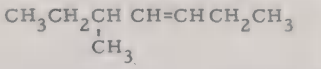
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 93

NAME	5-Methyl-cis-3-heptene	STRUCTURAL FORMULA
Mole % Pur.	Ref.	
Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$$CH_3CH_2\underset{CH_3}{CH}\,CH{=}CH\,CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure mm 25°C	26.48	5
t_e	1038.	5
Density g/ml 20°C	0.713	2
d_4^t 25	0.709	2
30	0.705	4
a	0.729	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.410	2
25	1.408	2
30	1.405	4
"C"	0.7657	4
MR (Obs.)	39.0	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 27 to 141 °C	6.94826	5
B	1341.1	5
C	217.72	5
A* 27 to 133 °C	1.39246	5
B*	1259.5	5
K		
c		
t_k to		
t_x °C		
A' 15 to 27 °C	7.35001	5
B'	1545.3	5
C'	235.72	5
A'* 15 to 27 °C	1.74894	5
B'*	1445.8	5
Ac 141 to t_c °C	7.3588	5
Bc	1652.	5
Cc	257.	5
Cryos. consts. A°		
B°		
t_e °C	123.34	5

		Ref.
dt/dP °C/mm 25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g 25°C	82.42	5
30 mm	82.25	5
BP	70.49	5
t_e	68.97	5
t_e (d, e)	68.92	5
$\Delta Hv/T_e$	19.52	5
d 27 to 123 °C	86.05	5
e	0.1389	5
d' 15 to 27 °C	84.19	5
e'	0.0709	5
d_c g/ml	0.242	5
v_c ml/g	4.140	5
t_c °C	279.	5
P_c mm	18976.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	20.57	5
30	19.65	5
40	18.76	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l. %/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

T_R = 0.75 T_c

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

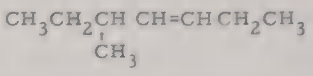
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 94

NAME	5-Methyl-trans-3-heptene	STRUCTURAL FORMULA


$CH_3CH_2\underset{CH_3}{CH}\,CH{=}CH\,CH_2CH_3$

Mole % Pur.		Ref.		Molecular Formula	C_8H_{16}	Molecular Weight	112.208

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure		
mm 25°C	26.48	5
t_e	1038.	5
Density		
g/ml 20°C	0.713	2
d_4^t 25	0.709	2
30	0.705	4
a	0.729	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.410	2
25	1.408	2
30	1.405	4
"C"	0.7657	4
MR (Obs.)	39.0	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 27 to	6.94826	5
B 141 °C	1341.1	5
C	217.72	5
A* 27 to	1.39246	5
B* 133 °C	1259.5	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.35001	5
B' 27 °C	1545.3	5
C'	235.72	5
A'* 15 to	1.74894	5
B'* 27 °C	1445.8	5
Ac 141 to	7.3588	5
Bc t_c °C	1652.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP °C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.42	5
30 mm	82.25	5
BP	70.49	5
t_e	68.97	5
t_e (d, e)	68.92	5
ΔHv/T_e	19.52	5
d 27 to	86.05	5
e 123 °C	0.1389	5
d' 15 to	84.19	5
e' 27 °C	0.0709	5
d_c g/ml	0.242	5
v_c ml/g	4.140	5
t_c °C	279.	5
P_c mm	18976.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension		
dynes/cm. 20°C	20.57	5
γ 30	19.65	5
40	18.76	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

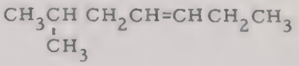
PURIFICATION: API

LITERATURE REFERENCES:

No. 95

NAME	6-Methyl-cis-3-heptene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,CH_2CH{=}CH\,CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	115.	2
100	55.93	4
30	29.85	4
10	9.94	5
1	-23.40	5
Pressure mm 25°C	23.32	5
t_e	1046.	5
Density g/ml 20°C	0.713	2
d^t_4 25	0.709	2
30	0.705	4
a	0.729	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.410	2
25	1.408	2
30	1.403	4
"C"	0.7657	4
MR (Obs.)	39.0	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 30 to	6.95245	5
B 144 °C	1352.4	5
C	217.15	5
A* 30 to	1.39344	5
B* 134 °C	1270.2	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.35146	5
B' 30 °C	1556.7	5
C'	235.15	5
A'* 20 to	1.74923	5
B'* 30 °C	1457.1	5
Ac 144 to	7.3627	5
Bc t_c °C	1665.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	126.72	5

		Ref.
dt/dP °C/mm 25°C	0.8098	5
BP	0.04662	4
t_e	0.03630	5
30 mm	0.6530	5
ΔHm cal/g		
ΔHv cal/g 25°C	83.39	5
30 mm	83.02	5
BP	71.15	5
t_e	69.57	5
t_e (d, e)	69.51	5
$\Delta Hv/T_e$	19.52	5
d 30 to	87.18	5
e 127 °C	0.1394	5
d' 20 to	85.31	5
e' 30 °C	0.0768	5
d_c g/ml	0.241	5
v_c ml/g	4.152	5
t_c °C	283.	5
P_c mm	19060.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9402	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	20.57	5
γ 30	19.65	5
40	18.76	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

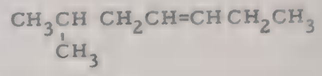
PURIFICATION: API

LITERATURE REFERENCES:

No. 96

NAME	6-Methyl-trans-3-heptene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{\displaystyle CH_3}{CH}\ CH_2CH{=}CH\,CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	115.	2
100	55.93	4
30	29.85	4
10	9.94	5
1	-23.40	5
Pressure mm 25°C	23.32	5
t_e	1046.	5
Density g/ml 20°C	0.713	2
d_4^t 25	0.709	2
30	0.705	4
a	0.729	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.410	2
25	1.408	2
30	1.403	4
"C"	0.7657	4
MR (Obs.)	39.0	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 30 to 144 °C	6.95245	5
B	1352.4	5
C	217.15	5
A* 30 to 134 °C	1.39344	5
B*	1270.2	5
K		
c		
t_k to		
t_x °C		
A' 20 to 30 °C	7.35146	5
B'	1556.7	5
C'	235.15	5
A'* 20 to	1.74923	5
B'* 30 °C	1457.1	5
Ac 144 to t_c °C	7.3627	5
Bc	1665.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	126.72	5

		Ref.
dt/dP °C/mm		
25°C	0.8098	5
BP	0.04662	4
t_e	0.0363	5
30 mm	0.6530	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.39	5
30 mm	83.02	5
BP	71.15	5
t_e	69.57	5
t_e (d, e)	69.51	5
$\Delta Hv/T_e$	19.52	5
d 30 to 127 °C	87.18	5
e	0.1394	5
d' 20 to 30 °C	85.31	5
e'	0.0768	5
d_c g/ml	0.241	5
v_c ml/g	4.152	5
t_c °C	283.	5
P_c mm	19060.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9402	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	20.57	5
γ 30	19.65	5
40	18.76	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

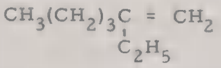
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 97

NAME	2-Ethyl-1-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3(CH_2)_3\underset{|}{C}(C_2H_5) = CH_2$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	120.	2
100	60.25	4
30	33.87	4
10	13.73	5
1	-20.00	5
Pressure mm 25°C	18.88	5
t_e	1060.	5
Density g/ml 20°C	0.7270	2
d_4^t 25	0.7228	2
30	0.7186	4
a	0.7438	4
b	-0.0_383	4
Ref. Index		
n_D 20°C	1.4157	2
25	1.4132	2
30	1.4106	4
"C"	0.7608	4
MR (Obs.)	38.71	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0522	2
Dielectric		
A 34 to	6.95634	5
B 151 °C	1370.2	5
C	216.2	5
A* 34 to	1.39292	5
B* 142 °C	1287.3	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35072	5
B' 34 °C	1575.	5
C'	234.2	5
A'* 25 to	1.74662	5
B'* 34 °C	1474.8	5
Ac 151 to	7.3666	5
Bc t_c °C	1688.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	132.35	5

		Ref.
dt/dP °C/mm		
25°C	0.9813	5
BP	0.0471	4
t_e	0.0363	5
30 mm	0.6607	5
ΔHm cal/g		
ΔHv cal/g		
25°C	84.97	5
30 mm	84.25	5
BP	72.15	5
t_e	70.48	5
t_e (d, e)	70.42	5
$\Delta Hv/T_e$	19.50	5
d 34 to	89.00	5
e 132 °C	0.1404	5
d' 25 to	87.00	5
e' 34 °C	0.0812	5
d_c g/ml	0.244	5
v_c ml/g	4.101	5
t_c °C	292.	5
P_c mm	19527.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9495	5
t_e	0.9393	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	22.24	5
γ 30	21.22	5
40	20.23	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

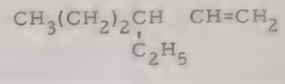
PURIFICATION: API

LITERATURE REFERENCES:

No. 98

NAME	3-Ethyl-1-hexene			
Mole % Pur.		Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3(CH_2)_2\underset{C_2H_5}{CH}\ CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.3	2
100	51.82	4
30	26.02	4
10	6.32	5
1	-26.66	5
Pressure mm 25°C	28.46	5
t_e	1033.	5
Density g/ml 20°C	0.715	2
d_4^t 25	0.711	2
30	0.707	4
a	0.731	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.407	2
25	1.405	2
30	1.402	4
"C"	0.7582	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 26 to	6.94556	5
B 140 °C	1334.6	5
C	218.	5
A* 26 to	1.39159	5
B* 131 °C	1253.3	5
K		
c		
t_k to		
t_x °C		
A' 5 to	7.34887	5
B' 26 °C	1538.8	5
C'	236.	5
A'* 5 to	1.74852	5
B'* 26 °C	1439.3	5
Ac 140 to	7.35634	5
Bc t_c °C	1644.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	121.42	5

		Ref.
dt/dP °C/mm		
25°C	0.6758	5
BP	0.0462	4
t_e	0.0363	5
30 mm	0.6461	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.86	5
30 mm	81.80	5
BP	70.12	5
t_e	68.63	5
t_e (d, e)	68.58	5
ΔHv/T_e	19.51	5
d 26 to	85.41	5
e 121 °C	0.1386	5
d' 5 to	83.32	5
e' 26 °C	0.0582	5
d_c g/ml	0.243	5
v_c ml/g	4.121	5
t_c °C	277.	5
P_c mm	18997.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9406	5
t_c	0.256	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g to °K h		
f' g' to °K h'		
m n to °K o		
m' n' to °K o'		
Surface tension dynes/cm. 20°C	20.80	5
γ 30	19.87	5
40	18.97	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	117.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

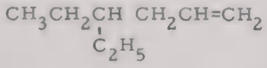
REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 99

NAME	4-Ethyl-1-hexene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	 $CH_3CH_2\underset{C_2H_5}{CH}\ CH_2CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	113.	2
100	54.18	4
30	28.22	4
10	8.40	5
1	-24.78	5
Pressure mm 25°C	25.38	5
t_e	1040.	5
Density g/ml 20°C	0.726	2
d_4^t 25	0.722	2
30	0.718	4
a	0.742	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.412	2
25	1.410	2
30	1.407	4
"C"	0.7554	4
MR (Obs.)	38.5	2
MR (Calc.)	38.677	5
(nD-d/2)	1.049	2
Dielectric		
A 28 to	6.94966	5
B 130 °C	1344.9	5
C	217.53	5
A* 28 to	1.39289	5
B* 120 °C	1263.1	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.35049	5
B' 28 °C	1549.1	5
C'	235.53	5
A'* 15 to	1.74901	5
B'* 28 °C	1450.0	5
Ac 130 to	7.3559	5
Bc t_c °C	1642.	5
Cc	254.	5
Cryos. A° consts. B°		
t_e °C	124.46	5

		Ref.
dt/dP °C/mm		
25°C	0.7497	5
BP	0.0464	4
t_e	0.0363	5
30 mm	0.6501	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.74	5
30 mm	82.50	5
BP	70.74	5
t_e	69.20	5
t_e (d, e)	69.14	5
ΔHv/T_e	14.69	5
d 28 to	86.51	5
e 110 °C	0.1396	5
d' 15 to	84.58	5
e' 28 °C	0.0737	5
d_c g/ml	0.201	5
v_c ml/g	4.985	5
t_c °C	264.	5
P_c mm	15331.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9400	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension dynes/cm. 20°C	22.11	5
γ 30	21.14	5
40	20.19	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	117.	2
Flash Point °C Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

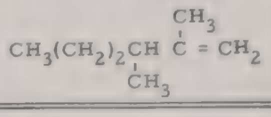
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 100

NAME	2, 3-Dimethyl-1-hexene	STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}
Molecular Weight 112.208		



$CH_3(CH_2)_2\underset{CH_3}{CH}\overset{CH_3}{C} = CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.5	2
100	52.02	4
30	26.21	4
10	6.51	5
1	-26.48	5
Pressure		
mm 25°C	28.18	5
t_e	1033.	5
Density		
g/ml 20°C	0.7214	2
d_4^t 25	0.7172	2
30	0.7130	4
a	0.7382	4
b	-0.0_383	4
Ref. Index		
n_D 20°C	1.4113	2
25	1.4089	2
30	1.4063	4
"C"	0.7590	4
MR (Obs.)	38.64	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0506	2
Dielectric		
A 26 to	6.94766	5
B 140°C	1336.0	5
C	218.	5
A* 26to	1.39348	5
B* 130°C	1254.6	5
K		
c		
t_k to		
t_x °C		
A' 15to	7.35087	5
B' 26°C	1540.2	5
C'	236.	5
A'* 15to	1.75034	5
B'* 26°C	1440.7	5
Ac 140to	7.3585	5
Bc t_c °C	1646.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	121.64	5

		Ref.
dt/dP		
°C/mm		
25°C	0.6817	5
BP	0.0462	4
t_e	0.0363	5
30 mm	0.6463	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.96	5
30 mm	81.89	5
BP	70.20	5
t_e	68.70	5
t_e (d, e)	68.65	5
$\Delta Hv/T_e$	19.52	5
d 26 to	85.52	5
e 122 °C	0.1387	5
d' 15 to	83.50	5
e' 26 °C	0.0617	5
d_c g/ml	0.244	5
v_c ml/g	4.099	5
t_c °C	278.	5
P_c mm	19130.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9406	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.55	5
γ 30	20.56	5
40	19.58	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

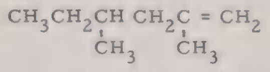
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 101

NAME	2, 4-Dimethyl-1-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3CH_2\underset{CH_3}{CH}\,CH_2\underset{CH_3}{C}=CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	111.2	2
100	52.60	4
30	26.74	4
10	7.00	5
1	-26.05	5
Pressure		
mm 25°C	27.42	5
t_e	1035.	5
Density		
g/ml 20°C	0.720	2
d_4^t 25	0.716	2
30	0.712	4
a	0.736	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.411	2
25	1.409	2
30	1.406	4
"C"	0.7600	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A 27 to	6.94593	5
B 141 °C	1337.7	5
C	217.87	5
A* 27 to	1.39098	5
B* 130 °C	1256.3	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.34836	5
B' 27 °C	1541.8	5
C'	235.87	5
A'* 15 to	1.74767	5
B'* 27 °C	1442.4	5
Ac 141 to	7.3568	5
Bc t_c °C	1649.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	122.44	5

		Ref.
dt/dP		
°C/mm		
25°C	0.6991	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6475	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.13	5
30 mm	82.02	5
BP	70.30	5
t_e	68.80	5
t_e (d, e)	68.75	5
ΔHv/T_e	19.51	5
d 27 to	85.73	5
e 122 °C	0.1387	5
d' 15 to	83.82	5
e' 27 °C	0.0672	5
d_c g/ml	0.244	5
v_c ml/g	4.093	5
t_c °C	279.	5
P_c mm	19195.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9406	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.39	5
γ 30	20.44	5
40	19.52	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

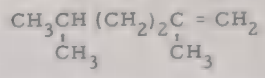
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 102

NAME	2, 5-Dimethyl-1-hexene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$$\underset{\displaystyle CH_3}{CH_3CH}\,(CH_2)_2\,\underset{\displaystyle CH_3}{C} = CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	111.6	2
100	52.95	4
30	27.07	4
10	7.32	5
1	-25.76	5
Pressure mm 25°C	26.95	5
t_e	1036.	5
Density g/ml 20°C	0.7172	2
d_4^t 25	0.7129	2
30	0.7086	4
a	0.7344	4
b	-0.0_385	4
Ref. Index n_D 20°C	1.4105	2
25	1.4080	2
30	1.4057	4
"C"	0.7620	4
MR (Obs.)	38.80	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0519	2
Dielectric		
A 27 to	6.94709	5
B 140 °C	1339.4	5
C	217.80	5
A* 27 to	1.39172	5
B* 130 °C	1257.9	5
K		
c		
t_k to		
t_x °C		
A' 10 to	7.34919	5
B' 27 °C	1543.6	5
C'	235.80	5
A'* 10 to	1.74826	5
B'* 27 °C	1444.1	5
Ac 140 to	7.3576	5
Bc t_c °C	1650.	5
Cc	257.	5
Cryos. consts. A°		
B°		
t_e °C	122.89	5

		Ref.
dt/dP °C/mm		
25°C	0.7102	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6480	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.28	5
30 mm	82.13	5
BP	70.40	5
t_e	68.88	5
t_e (d, e)	68.83	5
ΔHv/T_e	19.51	5
d 27 to	85.89	5
e 123 °C	0.1388	5
d' 10 to	84.01	5
e' 27 °C	0.0693	5
d_c g/ml	0.241	5
v_c ml/g	4.148	5
t_c °C	278.	5
P_c mm	18908.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.06	5
30	20.05	5
40	19.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

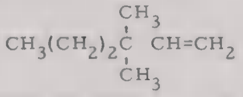
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 103

NAME	3, 3-Dimethyl-1-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3(CH_2)_2\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	104.	2
100	46.36	4
30	20.94	4
10	1.65	5
1	-30.18	5
Pressure mm 25°C	36.97	5
t_e	1016.	5
Density g/ml 20°C	0.7140	2
d_4^t 25	0.7099	2
30	0.7058	4
a	0.7303	4
b	-0.0_381	4
Ref. Index n_D 20°C	1.4070	2
25	1.4046	2
30	1.4021	4
"C"	0.7593	4
MR (Obs.)	38.68	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0500	2
Dielectric		
A 21 to	6.93989	5
B 132 °C	1312.1	5
C	219.24	5
A* 21 to	1.39099	5
B* 124 °C	1231.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 132 to	7.3512	5
Bc t_c °C	1617.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	114.36	5

		Ref.
dt/dP °C/mm		
25°C	0.5340	5
BP	0.0455	4
t_e	0.0363	5
30 mm	0.6365	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.70	5
30 mm	80.24	5
BP	68.88	5
t_e	67.50	5
t_e (d, e)	67.46	5
$\Delta Hv/T_e$	19.54	5
d 21 to	83.11	5
e 114 °C	0.1368	5
d' to		
e' °C		
d_c g/ml	0.243	5
v_c ml/g	4.115	5
t_c °C	268.	5
P_c mm	18786.	5
PV/RT		
25°C	0.9991	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9422	5
t_c	0.257	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	20.68	5
γ 30	19.73	5
40	18.81	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

$T_R = 0.75\,T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

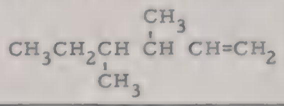
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 104

NAME	3,4-Dimethyl-1-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3CH_2\underset{CH_3}{CH}\overset{CH_3}{CH}\,CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure		
mm 25°C	26.48	5
t_e	1038.	5
Density		
g/ml 20°C	0.724	2
d_4^t 25	0.720	2
30	0.716	4
a	0.740	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.413	2
25	1.411	2
30	1.408	4
"C"	0.7592	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A 27 to	6.94826	5
B 142 °C	1341.1	5
C	217.72	5
A* 27 to	1.39246	5
B* 133 °C	1259.5	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.3500	5
B' 27 °C	1545.3	5
C'	236.	5
A'* 15 to	1.74894	5
B'* 27 °C	1445.8	5
Ac 142 to	7.3592	5
Bc t_c °C	1653.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP		
°C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.42	5
30 mm	82.25	5
BP	70.50	5
t_e	68.98	5
t_e (d, e)	68.93	5
$\Delta Hv/T_e$	19.52	5
d 27 to	86.05	5
e 123 °C	0.1388	5
d' 15 to	84.19	5
e' 27 °C	0.0710	5
d_c g/ml	0.246	5
v_c ml/g	4.068	5
t_c °C	281.	5
P_c mm	19384.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.87	5
γ 30	20.91	5
40	19.97	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

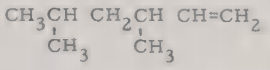
PURIFICATION: API

LITERATURE REFERENCES:

No. 105

NAME	3,5-Dimethyl-1-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,CH_2\underset{CH_3}{CH}\,CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	104.	2
100	46.36	4
30	20.94	4
10	1.65	5
1	-30.18	5
Pressure		
mm 25°C	36.97	5
t_e	1016.0	5
Density		
g/ml 20°C	0.708	2
d_4^t 25	0.704	2
30	0.700	4
a	0.724	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.404	2
25	1.402	2
30	1.399	4
"C"	0.7604	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 21 to	6.93989	5
B 132 °C	1312.1	5
C	219.24	5
A* 21 to	1.39099	5
B* 124 °C	1231.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 132 to	7.3510	5
Bc t_c °C	1617.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	114.36	5

		Ref.
dt/dP °C/mm		
25°C	0.5340	5
BP	0.0455	4
t_e	0.0363	5
30 mm	0.6365	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.70	5
30 mm	80.24	5
BP	68.88	5
t_e	67.50	5
t_e (d, e)	67.46	5
ΔHv/T_e	19.54	5
d 21 to	83.11	5
e 114 °C	0.1369	5
d' to		
e' °C		
d_c g/ml	0.241	5
v_c ml/g	4.142	5
t_c °C	267.	5
P_c mm	18629.	5
PV/RT		
25°C	0.9991	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9422	5
t_c	0.257	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	19.99	5
γ 30	19.09	5
40	18.22	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

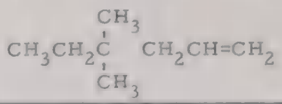
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 106

NAME	4, 4-Dimethyl-1-hexene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\ CH_2CH{=}CH_2$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	107.2	2
100	49.14	4
30	23.53	4
10	4.09	5
1	-27.99	5
Pressure		
mm 25°C	32.37	5
t_e	1025.	5
Density		
g/ml 20°C	0.7198	2
d_4^t 25	0.7157	2
30	0.7116	4
a	0.7361	4
b	-0.0_381	4
Ref. Index		
n_D 20°C	1.4102	2
25	1.4078	2
30	1.4053	4
"C"	0.7588	4
MR (Obs.)	38.64	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0503	2
Dielectric		
A 24 to	6.94327	5
B 136 °C	1323.7	5
C	218.63	5
A* 24 to	1.39088	5
B* 128 °C	1242.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 136 to	7.3545	5
Bc t_c °C	1632.	5
Cc	258.	5
Cryos. A° consts. B°		
t_e °C	117.97	5

		Ref.
dt/dP °C/mm		
25°C	0.6016	5
BP	0.0458	4
t_e	0.0363	5
30 mm	0.6413	5
ΔHm cal/g		
ΔHv cal/g		
25°C	71.19	5
30 mm	81.04	5
BP	69.56	5
t_e	68.12	5
t_e (d, e)	68.08	5
$\Delta Hv/T_e$	19.54	5
d 24 to	84.27	5
e 118 °C	0.1373	5
d' to		
e' °C		
d_c g/ml	0.245	5
v_c ml/g	4.089	5
t_c °C	273.	5
P_c mm	19079.	5
PV/RT		
25°C	0.8807	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9419	5
t_c	0.257	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. γ 20°C	21.36	5
30	20.40	5
40	19.46	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

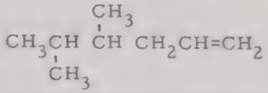
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 107

NAME	4,5-Dimethyl-1-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3\overset{}{\underset{CH_3}{C}}H\ \overset{CH_3}{C}H\ CH_2CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	109.	2
100	50.69	4
30	24.96	4
10	5.44	5
1	-26.78	5
Pressure mm 25°C	30.06	5
t_e	1030.	5
Density g/ml 20°C	0.728	2
d_4^t 25	0.724	2
30	0.720	4
a	0.744	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.414	2
25	1.412	2
30	1.409	4
"C"	0.7568	4
MR (Obs.)	38.5	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 25 to	6.94402	5
B 140 °C	1329.8	5
C	218.29	5
A* 25 to	1.38967	5
B* 130 °C	1248.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 140 to	7.3554	5
Bc t_c °C	1641.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	120.00	5

		Ref.
dt/dP °C/mm		
25°C	0.6431	5
BP	0.0460	4
t_e	0.0363	5
30 mm	0.6441	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.03	5
30 mm	81.47	5
BP	69.92	5
t_e	68.46	5
t_e (d, e)	68.41	5
ΔHv/T_e	19.54	5
d 25 to	84.91	5
e 120 °C	0.1374	5
d' to		
e' °C		
d_c g/ml	0.248	5
v_c ml/g	4.038	5
t_c °C	277.	5
P_c mm	19460.	5
PV/RT		
25°C	0.9703	5
30 mm	1.0000	5
BP	0.9510	5
t_e	0.9418	5
t_c	0.257	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.35	5
γ 30	21.37	5
40	20.42	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

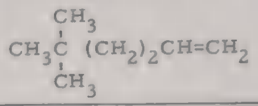
PURIFICATION: API

LITERATURE REFERENCES:

No. 108

NAME	5,5-Dimethyl-1-hexene				
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}		Molecular Weight 112.208	

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ (CH_2)_2CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	102.5	2
100	45.07	4
30	19.74	4
10	0.52	5
1	-31.19	5
Pressure mm 25°C	39.31	5
t_e	1013.	5
Density g/ml 20°C	0.709	2
d_4^t 25	0.705	2
30	0.701	4
a	0.725	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.4049	2
25	1.4024	2
30	1.4001	4
"C"	0.7609	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0501	2
Dielectric		
A 20 to	6.93924	5
B 130 °C	1306.9	5
C	219.52	5
A* 20 to	1.39022	5
B* 120 °C	1226.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.3505	5
Bc t_c °C	1610.6	5
Cc	258.	5
Cryos. A° consts. B°		
t_e °C	112.71	5

		Ref.
dt/dP °C/mm		
25°C	0.5054	5
BP	0.0453	4
t_e	0.0362	5
30 mm	0.6341	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.19	5
30 mm	79.89	5
BP	68.65	5
t_e	67.30	5
t_e (d, e)	67.26	5
ΔHv/T_e	19.57	5
d 20 to	82.57	5
e 113 °C	0.1358	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.101	5
t_c °C	265.	5
P_c mm	18670.	5
PV/RT		
25°C	0.9991	5
30 mm	1.0000	5
BP	0.9520	5
t_e	0.9434	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	20.10	5
30	19.21	5
40	18.33	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

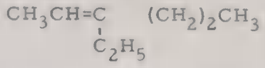
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 109

NAME	3-Ethyl-cis-2-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3CH=\underset{\substack{|\\ C_2H_5}}{C}\quad(CH_2)_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	121.	2
100	61.12	4
30	34.68	4
10	14.50	5
1	-19.31	5
Pressure		
mm 25°C	18.09	5
t_e	1063.	5
Density		
g/ml 20°C	0.737	2
d_4^t 25	0.733	2
30	0.729	4
a	0.753	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.424	2
25	1.422	2
30	1.419	4
"C"	0.7646	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.056	2
Dielectric		
A 35 to	6.95770	5
B 154 °C	1374.0	5
C	216.	5
A* 35 to	1.39234	5
B* 144 °C	1290.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35121	5
B' 35 °C	1578.3	5
C'	234.	5
A'* 25 to	1.74671	5
B'* 35 °C	1478.6	5
Ac 154 to	7.3684	5
Bc t_c °C	1694.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	133.50	5

		Ref.
dt/dP		
°C/mm		
25°C	1.020	5
BP	0.0472	4
t_e	0.0363	5
30 mm	0.6622	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.30	5
30 mm	84.51	5
BP	72.42	5
t_e	70.73	5
t_e (d, e)	70.67	5
$\Delta Hv/T_e$	19.52	5
d 35 to	89.36	5
e 134 °C	0.1400	5
d' 25 to	87.35	5
e' 35 °C	0.0819	5
d_c g/ml	0.248	5
v_c ml/g	4.030	5
t_c °C	296.	5
P_c mm	20096.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9397	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.49	5
γ 30	22.47	5
40	21.49	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

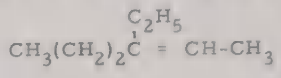
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 110

NAME	3-Ethyl-trans-2-hexene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}		Molecular Weight 112.208	



$CH_3(CH_2)_2\overset{C_2H_5}{\overset{|}{C}} = CH\text{-}CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	121.	2
100	61.12	4
30	34.68	4
10	14.50	5
1	-19.31	5
Pressure mm 25°C	18.09	5
t_e	1063.	5
Density g/ml 20°C	0.737	2
d_4^t 25	0.733	2
30	0.729	4
a	0.753	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.424	2
25	1.422	2
30	1.419	4
"C"	0.7646	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.056	2
Dielectric		
A 35 to	6.95770	5
B 154 °C	1374.0	5
C	216.	5
A* 35 to	1.39234	5
B* 144 °C	1290.7	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.35121	5
B' 35 °C	1578.3	5
C'	234.	5
A'* 25 to	1.74671	5
B'* 35 °C	1478.6	5
Ac 154 to	7.3684	5
Bc t_c °C	1694.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	133.50	5

		Ref.
dt/dP °C/mm		
25°C	1.0203	5
BP	0.0472	4
t_e	0.0363	5
30 mm	0.6622	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.30	5
30 mm	84.51	5
BP	72.42	5
t_e	70.73	5
t_e (d, e)	70.67	5
ΔHv/T_e	19.52	5
d 35 to	89.36	5
e 134 °C	0.1400	5
d' 25 to	87.35	5
e' 35 °C	0.0819	5
d_c g/ml	0.248	5
v_c ml/g	4.030	5
t_c °C	296.	5
P_c mm	20096.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9397	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.49	5
γ 30	22.47	5
40	21.49	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.	2
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

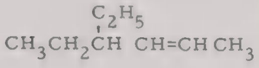
PURIFICATION: API

LITERATURE REFERENCES:

No. 111

NAME	4-Ethyl-cis-2-hexene			
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	

STRUCTURAL FORMULA



$$CH_3CH_2\overset{C_2H_5}{CH}\ CH{=}CH\,CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	113.	2
100	54.18	4
30	28.22	4
10	8.40	5
1	-24.78	5
Pressure mm 25°C	25.38	5
t_e	1040.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.038	4
Ref. Index n_D 20°C	1.412	2
25	1.410	2
30	1.407	4
"C"	0.7564	4
MR (Obs.)	38.5	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 20 to 144 °C	6.94966	5
B	1344.9	5
C	217.53	5
A* 20 to 134 °C	1.39279	5
B*	1263.1	5
K		
c		
t_k to °C		
t_x		
A' 15 to 20 °C	7.3505	5
B'	1549.1	5
C'	235.53	5
A'* 15 to	1.74901	5
B'* 20 °C	1450.	5
Ac 144 to t_c °C	7.3606	5
Bc	1658.	5
Cc	257.	5
Cryos. consts. A°		
B°		
t_e °C	124.47	5

		Ref.
dt/dP °C/mm 25°C	0.7500	5
BP	0.0464	4
t_e	0.0363	5
30 mm	0.6501	5
ΔHm cal/g		
ΔHv cal/g 25°C	82.95	5
30 mm	82.50	5
BP	70.72	5
t_e	69.18	5
t_e (d, e)	69.13	5
ΔHv/T_e	19.52	5
d 20 to 124 °C	86.42	5
e	0.1390	5
d' to °C		
e'		
d_c g/ml	0.246	5
v_c ml/g	4.061	5
t_c °C	282.	5
P_c mm	19451.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9404	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.99	5
30	21.02	5
40	20.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

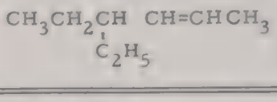
REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 112

NAME	4-Ethyl-trans-2-hexene		STRUCTURAL FORMULA  $CH_3CH_2\underset{C_2H_5}{CH}\ CH{=}CHCH_3$
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	113.	2
100	54.18	4
30	28.22	4
10	8.40	5
1	-24.78	5
Pressure mm 25°C	25.38	5
t_e	1040.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.412	2
25	1.410	2
30	1.407	4
"C"	0.7564	4
MR (Obs.)	38.5	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 20 to 144 °C	6.94966	5
B	1344.9	5
C	217.53	5
A* 20 to 134 °C	1.39279	5
B*	1263.1	5
K		
c		
t_k to °C		
t_x		
A' 15 to 20 °C	7.3505	5
B'	1549.1	5
C'	235.53	5
A'* 15 to 20 °C	1.74901	5
B'*	1450.	5
Ac 144 to t_c °C	7.3606	5
Bc	1658.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	124.47	5

		Ref.
dt/dP °C/mm 25°C	0.750	5
BP	0.0464	4
t_e	0.0363	5
30 mm	0.6501	5
ΔHm cal/g		
ΔHv cal/g 25°C	82.95	5
30 mm	82.50	5
BP	70.72	5
t_e	69.18	5
t_e (d, e)	69.13	5
$\Delta Hv/T_e$	19.52	5
d 28 to 124 °C	86.42	5
e	0.1390	5
d' to °C		
e'		
d_c g/ml	0.246	5
v_c ml/g	4.061	5
t_c °C	282.	5
P_c mm	19451.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9404	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	21.99	5
30	21.02	5
40	20.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

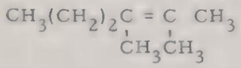
PURIFICATION: API

LITERATURE REFERENCES:

No. 113

NAME	2,3-Dimethyl-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3(CH_2)_2\underset{CH_3}{C}=\underset{CH_3}{C}\ CH_3$

		Ref.
F.P. °C	-115.1	2
F.P. 100%		
B.P. °C 760 mm	121.77	2
100	61.77	4
30	35.28	4
10	15.05	5
1	-18.81	5
Pressure mm 25°C	17.54	5
t_e	1066.	5
Density g/ml 20°C	0.7408	2
d_4^t 25	0.7366	2
30	0.7324	4
a	0.7576	4
b	$-0.0_{3}84$	4
Ref. Index n_D 20°C	1.4268	2
25	1.4244	2
30	1.4217	4
"C"	0.7654	4
MR (Obs.)	38.87	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0564	2
Dielectric		
A 35 to	6.95670	5
B 154 °C	1376.2	5
C	215.86	5
A* 35 to	1.39053	5
B* 144 °C	1292.8	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.34943	5
B' 35 °C	1580.5	5
C'	233.86	5
A'* 25 to	1.74467	5
B'* 35 °C	1480.7	5
Ac 154 to	7.36734	5
Bc t_c °C	1697.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	134.38	5

		Ref.
dt/dP °C/mm 25°C	1.0500	5
BP	0.0473	4
t_e	0.0363	5
30 mm	0.6635	5
ΔHm cal/g		
ΔHv cal/g 25°C	85.51	5
30 mm	84.67	5
BP	72.55	5
t_e	70.85	5
t_e (d, e)	70.78	5
ΔHv/T_e	19.51	5
d 35 to	89.61	5
e 134 °C	0.1401	5
d' 25 to	87.57	5
e' 35 °C	0.0824	5
d_c g/ml	0.248	5
v_c ml/g	4.040	5
t_c °C	297.	5
P_c mm	20079.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9397	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.97	5
γ 30	22.90	5
40	21.85	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

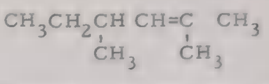
PURIFICATION: API

LITERATURE REFERENCES:

No. 114

NAME	2, 4-Dimethyl-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{CH}\,CH{=}\underset{CH_3}{C}\ \ CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.6	2
100	52.08	4
30	26.26	4
10	6.55	5
1	-26.45	5
Pressure mm 25°C	28.11	5
t_e	1034.	5
Density g/ml 20°C	0.7213	2
d_4^t 25	0.7171	2
30	0.7129	4
a	0.7381	4
b	-0.0_383	4
Ref. Index n_D 20°C	1.4118	2
25	1.4094	2
30	1.4067	4
"C"	0.7600	4
MR (Obs.)	38.69	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0512	2
Dielectric		
A 20 to 140 °C	6.94568	5
B	1335.7	5
C	218.	5
A* 20 to 130 °C	1.39139	5
B*	1254.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 140 to t_c °C	7.3565	5
Bc	1646.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	121.76	5

		Ref
dt/dP °C/mm		
25°C	0.6835	5
BP	0.0462	4
t_e	0.0363	5
30 mm	0.6466	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.95	5
30 mm	81.87	5
BP	70.18	5
t_e	68.69	5
t_e (d, e)	68.64	5
ΔHv/T_e	19.51	5
d 20 to 122 °C	85.51	5
e	0.1386	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.106	5
t_c °C	278.	5
P_c mm	19100.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9406	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.54	5
30	20.54	5
40	19.57	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

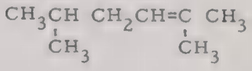
PURIFICATION: API

LITERATURE REFERENCES:

No. 115

NAME	2,5-Dimethyl-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\ CH_2CH{=}\underset{CH_3}{C}\ CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	112.2	2
100	53.47	4
30	27.55	4
10	7.77	5
1	-25.36	5
Pressure mm 25°C	26.28	5
t_e	1038.	5
Density g/ml 20°C	0.720	2
d_4^t 25	0.716	2
30	0.712	4
a	0.736	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.4140	2
25	1.4115	2
30	1.4091	4
"C"	0.7652	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 20 to 142 °C	6.94734	5
B	1341.5	5
C	217.68	5
A* 20 to 134 °C	1.39132	5
B*	1259.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 142 to t_c °C	7.3581	5
Bc	1653.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	123.57	5

		Ref.
dt/dP °C/mm 25°C	0.7265	5
BP	0.0464	4
t_e	0.0363	5
30 mm	0.6490	5
ΔHm cal/g		
ΔHv cal/g 25°C	82.63	5
30 mm	82.27	5
BP	70.52	5
t_e	69.00	5
t_e (d, e)	68.94	5
$\Delta Hv/T_e$	19.51	5
d 20 to 124 °C	86.10	5
e	0.1388	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.094	5
t_c °C	280.	5
P_c mm	19225.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. 20°C γ	21.39	5
30	20.44	5
40	19.52	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

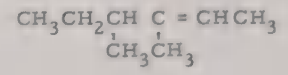
PURIFICATION: API

LITERATURE REFERENCES:

No. 116

NAME	3, 4-Dimethyl-cis-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3CH_2\underset{CH_3}{CH}\ \underset{CH_3}{C}=CHCH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	116.	2
100	56.76	4
30	30.61	4
10	10.66	5
1	-22.77	5
Pressure		
mm 25°C	22.40	5
t_e	1049.	5
Density		
g/ml 20°C	0.737	2
d_4^t 25	0.733	2
30	0.729	4
a	0.753	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.418	2
25	1.416	2
30	1.413	4
"C"	0.7543	4
MR (Obs.)	38.4	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 31 to	6.95084	5
B 148 °C	1355.2	5
C	216.96	5
A* 31 to	1.39076	5
B* 138 °C	1272.8	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.34881	5
B' 31 °C	1559.4	5
C'	234.96	5
A'* 20 to	1.74623	5
B'* 31 °C	1459.8	5
Ac 148 to	7.3620	5
Bc t_c °C	1672.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	127.86	5

		Ref.
dt/dP °C/mm		
25°C	0.8401	5
BP	0.0467	4
t_e	0.0363	5
30 mm	0.6548	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.66	5
30 mm	83.22	5
BP	71.33	5
t_e	69.74	5
t_e (d, e)	69.68	5
$\Delta Hv/T_e$	19.51	5
d 31 to	87.48	5
e 128 °C	0.1393	5
d' 20 to	85.60	5
e' 31 °C	0.0779	5
d_c g/ml	0.249	5
v_c ml/g	4.010	5
t_c °C	289.	5
P_c mm	19946.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension		
dynes/cm. 20°C	23.48	5
γ 30	22.47	5
40	21.48	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

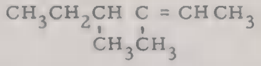
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 117

NAME	3, 4-Dimethyl-trans-2-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3CH_2\underset{CH_3}{CH}\,\underset{CH_3}{C}=CHCH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C 760 mm	116.	2
100	56.76	4
30	30.61	4
10	10.66	5
1	-22.77	5
Pressure mm 25°C	22.40	5
t_e	1049.	5
Density g/ml 20°C	0.737	2
d_4^t 25	0.733	2
30	0.729	4
a	0.753	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.418	2
25	1.416	2
30	1.413	4
"C"	0.7543	4
MR (Obs.)	38.4	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 31 to 148 °C	6.95084	5
B	1355.2	5
C	216.96	5
A* 31 to 138 °C	1.39076	5
B*	1272.8	5
K		
c		
t_k to t_x °C		
A' 20 to 31 °C	7.34881	5
B'	1559.4	5
C'	234.96	5
A'* 20 to 31 °C	1.74623	5
B'*	1459.8	5
Ac 148 to t_c °C	7.3620	5
Bc	1672.	5
Cc	257.	5
Cryos. consts. A°		
B°		
t_e °C	127.86	5

		Ref.
dt/dP °C/mm 25°C	0.8401	5
BP	0.0467	4
t_e	0.0363	5
30 mm	0.6548	5
ΔHm cal/g		
ΔHv cal/g 25°C	83.66	5
30 mm	83.22	5
BP	71.33	5
t_e	69.74	5
t_e (d, e)	69.68	5
$\Delta Hv/T_e$	19.51	5
d 31 to 128 °C	87.48	5
e	0.1393	5
d' 20 to 31 °C	85.60	5
e'	0.0779	5
d_c g/ml	0.249	5
v_c ml/g	4.010	5
t_c °C	289.	5
P_c mm	19946.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	23.48	5
30	22.47	5
40	21.48	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. 1. %/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in⁺ Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

⁺ grams/100 grams solvent

$T_R = 0.75\, T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

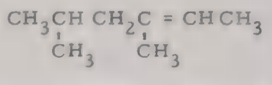
PURIFICATION: API

LITERATURE REFERENCES:

No. 118

NAME	3, 5-Dimethyl-cis-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,CH_2\underset{CH_3}{C}=CHCH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure mm 25°C	26.48	5
t_e	1038.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.416	2
25	1.414	2
30	1.411	4
"C"	0.7634	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 27 to 142 °C	6.94826	5
B	1341.1	5
C	217.72	5
A* 27 to 133 °C	1.39246	5
B*	1259.5	5
K		
c		
t_k to t_x °C		
A' 15 to 27 °C	7.35001	5
B'	1545.3	5
C'	235.72	5
A'* 15 to	1.74894	5
B'* 27 °C	1445.8	5
Ac 142 to t_c °C	7.3593	5
Bc	1653.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP °C/mm 25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g 25°C	82.42	5
30 mm	82.25	5
BP	70.50	5
t_e	68.98	5
t_e (d, e)	68.93	5
$\Delta Hv/T_e$	19.52	5
d 27 to 123 °C	86.05	5
e	0.1388	5
d' 15 to 27 °C	84.19	5
e'	0.0710	5
d_c g/ml	0.246	5
v_c ml/g	4.060	5
t_c °C	281.	5
P_c mm	19421.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	21.99	5
30	21.02	5
40	20.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	124.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

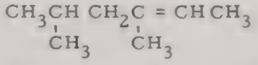
PURIFICATION: API

LITERATURE REFERENCES:

No. 119

NAME	3,5-Dimethyl-trans-2-hexene	
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}
Molecular Weight 112.208		

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\,CH_2\underset{CH_3}{C}=CHCH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure mm 25°C	26.48	5
t_e	1038.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.416	2
25	1.414	2
30	1.411	4
"C"	0.7634	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 27 to	6.94826	5
B 142 °C	1341.1	5
C	217.72	5
A* 27 to	1.39246	5
B* 133 °C	1259.5	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.35001	5
B' 27 °C	1545.3	5
C'	235.72	5
A'* 15 to	1.74894	5
B'* 27 °C	1445.8	5
Ac 142 to	7.3593	5
Bc t_c °C	1653.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP °C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.42	5
30 mm	82.25	5
BP	70.50	5
t_e	68.98	5
t_e (d, e)	68.93	5
ΔHv/T_e	19.52	5
d 27 to	86.05	5
e 123 °C	0.1388	5
d' 15 to	84.19	5
e' 27 °C	0.0710	5
d_c g/ml	0.246	5
v_c ml/g	4.060	5
t_c °C	281.	5
P_c mm	19421.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.99	5
γ 30	21.02	5
40	20.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in ⁺		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

⁺ grams/100 grams solvent

T_R = 0.75 T_c

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

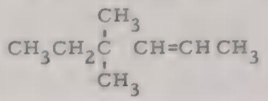
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 120

NAME	4, 4-Dimethyl-cis-2-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	106.	2
100	48.11	4
30	22.57	4
10	3.19	5
1	-28.80	5
Pressure mm 25°C	34.01	5
t_e	1020.	5
Density g/ml 20°C	0.722	2
d^t_4 25	0.718	2
30	0.714	4
a	0.738	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.413	2
25	1.411	2
30	1.409	4
"C"	0.7613	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 22 to 136 °C	6.94277	5
B	1319.6	5
C	218.86	5
A* 22 to 136 °C	1.39347	5
B*	1239.1	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 136 to t_c °C	7.3542	5
Bc	1627.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	116.57	5

		Ref.
dt/dP °C/mm		
25°C	0.5755	5
BP	0.0457	4
t_e	0.0363	5
30 mm	0.6395	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.42	5
30 mm	80.76	5
BP	69.25	5
t_e	67.83	5
t_e (d, e)	67.79	5
ΔHv/T_e	19.53	5
d 22 to 130 °C	83.87	5
e	0.1380	5
d' to °C		
e'		
d_c g/ml	0.248	5
v_c ml/g	4.038	5
t_c °C	272.	5
P_c mm	19212.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9410	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.62	5
30	20.68	5
40	19.76	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

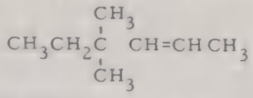
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 121

NAME	4,4-Dimethyl-trans-2-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3CH_2\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CHCH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	106.	2
100	48.11	4
30	22.57	4
10	3.19	5
1	-28.80	5
Pressure mm 25°C	34.01	5
t_e	1020.	5
Density g/ml 20°C	0.722	2
d^t_4 25	0.718	2
30	0.714	4
a	0.738	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.413	2
25	1.411	2
30	1.409	4
"C"	0.7613	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 22 to	6.94277	5
B 136 °C	1319.6	5
C	218.86	5
A* 22 to	1.39347	5
B* 136 °C	1239.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 136 to	7.3542	5
Bc t_c °C	1627.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	116.57	5

		Ref.
dt/dP °C/mm		
25°C	0.5755	5
BP	0.0457	4
t_e	0.0363	5
30 mm	0.6395	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.42	5
30 mm	80.76	5
BP	69.25	5
t_e	67.83	5
t_e (d, e)	67.79	5
$\Delta Hv/T_e$	19.53	5
d 22 to	83.87	5
e 130 °C	0.1380	5
d' to		
e' °C		
d_c g/ml	0.248	5
v_c ml/g	4.038	5
t_c °C	272.	5
P_c mm	19212.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9410	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.62	5
30	20.68	5
40	19.76	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

$T_R = 0.75\ T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

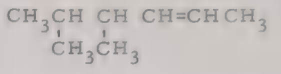
PURIFICATION: API

LITERATURE REFERENCES:

No. 122

NAME	4,5-Dimethyl-cis-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\,\underset{CH_3}{CH}\,CH{=}CHCH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.	2
100	51.56	4
30	25.78	4
10	6.10	5
1	-26.86	5
Pressure mm 25°C	28.82	5
t_e	1032.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.413	2
25	1.411	2
30	1.408	4
"C"	0.7582	4
MR (Obs.)	38.6	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A | 20 to	6.94544	5
B | 140 °C	1333.6	5
C	218.	5
A* | 20 to	1.39179	5
B* | 131 °C	1252.4	5
K		
c		
t_k | to		
t_x | °C		
A' | to		
B' | °C		
C'		
A'* to		
B'* °C		
Ac | 140 to	7.3566	5
Bc | t_c °C	1645.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	121.08	5

		Ref.
dt/dP °C/mm		
25°C	0.6682	5
BP	0.0461	4
t_e	0.0363	5
30 mm	0.6456	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.77	5
30 mm	81.73	5
BP	70.07	5
t_e	68.58	5
t_e (d, e)	68.53	5
$\Delta Hv/T_e$	19.52	5
d | 20 to	85.30	5
e | 121 °C	0.1385	5
d' | to		
e' | °C		
d_c g/ml	0.247	5
v_c ml/g	4.051	5
t_c °C	278.	5
P_c mm	19361.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9407	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v | to		
A^v | °C		
(B^v) | to		
(A^v) | °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f | to		
g | °K		
h		
f' | to		
g' | °K		
h'		
m | to		
n | °K		
o		
m' | to		
n' | °K		
o'		
Surface tension dynes/cm. γ 20°C	21.99	5
30	21.02	5
40	20.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

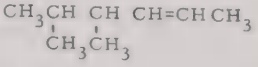
PURIFICATION: API

LITERATURE REFERENCES:

No. 123

NAME	4,5-Dimethyl-trans-2-hexene				
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}		Molecular Weight 112.208	

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,\underset{CH_3}{CH}\,CH{=}CH\,CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.	2
100	51.56	4
30	25.78	4
10	6.10	5
1	-26.86	5
Pressure mm 25°C	28.82	5
t_e	1032.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	$-0.0_{3}8$	4
Ref. Index n_D 20°C	1.413	2
25	1.411	2
30	1.408	4
"C"	0.7582	4
MR (Obs.)	38.6	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A 20 to	6.94544	5
B 140 °C	1333.6	5
C	218.	5
A* 20 to	1.39179	5
B* 131 °C	1252.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 140 to	7.3566	5
Bc t_c °C	1645.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	121.08	5

		Ref.
dt/dP °C/mm		
25°C	0.6682	5
BP	0.0461	4
t_e	0.0363	5
30 mm	0.6456	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.77	5
30 mm	81.73	5
BP	70.07	5
t_e	68.58	5
t_e (d, e)	68.53	5
$\Delta Hv/T_e$	19.52	5
d 20 to	85.30	5
e 121 °C	0.1385	5
d' to		
e' °C		
d_c g/ml	0.247	5
v_c ml/g	4.051	5
t_c °C	278.	5
P_c mm	19361.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9407	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.99	5
30	21.02	5
40	20.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

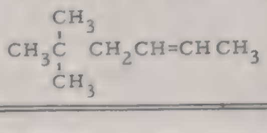
PURIFICATION: API

LITERATURE REFERENCES:

No. 124

NAME	5, 5-Dimethyl-cis-2-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3C(CH_3)_2CH_2CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	106.9	2
100	48.88	4
30	23.29	4
10	3.86	5
1	-28.19	5
Pressure mm 25°C	32.77	5
t_e	1023.	5
Density g/ml 20°C	0.7169	2
d_4^t 25	0.7125	2
30	0.7081	4
a	0.7344	4
b	-0.0_387	4
Ref. Index n_D 20°C	1.4113	2
25	1.4088	2
30	1.4060	4
"C"	0.7638	4
MR (Obs.)	38.89	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0528	2
Dielectric		
A 23 to 135 °C	6.94315	5
B	1322.7	5
C	218.69	5
A* 23 to 126 °C	1.39286	5
B*	1242.0	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 135 to t_c °C	7.35404	5
Bc	1629.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	117.58	5

		Ref.
dt/dP °C/mm		
25°C	0.5950	5
BP	0.0458	4
t_e	0.0363	5
30 mm	0.6409	5
ΔHm cal/g		
ΔHv cal/g 25°C	80.74	5
30 mm	80.97	5
BP	69.42	5
t_e	67.99	5
t_e (d, e)	67.94	5
$\Delta Hv/T_e$	19.52	5
d 23 to 118 °C	84.19	5
e	0.1382	5
d' to °C		
e'		
d_c g/ml	0.242	5
v_c ml/g	4.128	5
t_c °C	271.	5
P_c mm	18758.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9409	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. 20°C	21.02	5
γ 30	20.00	5
40	19.00	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

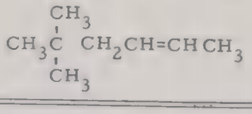
PURIFICATION: API

LITERATURE REFERENCES:

No. 125

NAME	5,5-Dimethyl-trans-2-hexene

STRUCTURAL FORMULA



$$CH_3C(CH_3)_2CH_2CH{=}CHCH_3$$

Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	104.1	2
100	46.46	4
30	21.04	4
10	1.74	5
1	-30.09	5
Pressure mm 25°C	36.79	5
t_e	1015.	5
Density g/ml d_4^t 20°C	0.7066	2
25	0.7023	2
30	0.6980	4
a	0.7237	4
b	-0.0_385	4
Ref. Index n_D 20°C	1.4055	2
25	1.4030	2
30	1.4002	4
"C"	0.7646	4
MR (Obs.)	38.96	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0522	2
Dielectric		
A 20 to 131 °C	6.94095	5
B	1312.7	5
C	219.22	5
A* 20 to 122 °C	1.39372	5
B*	1232.6	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 131 to t_c °C	7.3518	5
Bc	1616.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	114.43	5

		Ref.
dt/dP °C/mm		
25°C	0.5363	5
BP	0.0455	4
t_e	0.0363	5
30 mm	0.6366	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.74	5
30 mm	80.29	5
BP	68.84	5
t_e	67.45	5
t_e (d, e)	67.41	5
ΔHv/T_e	19.52	5
d 20 to 120 °C	83.19	5
e	0.1379	5
d' to °C		
e'		
d_c g/ml	0.24	5
v_c ml/g	4.17	5
t_c °C	266.	5
P_c mm	18389.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9412	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	19.83	5
30	18.87	5
40	17.94	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

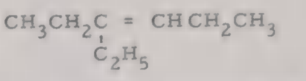
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 126

NAME	3-Ethyl-3-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208


$CH_3CH_2\underset{C_2H_5}{C} = CHCH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	116.	2
100	56.76	4
30	30.61	4
10	10.66	5
1	-22.77	5
Pressure		
mm 25°C	22.40	5
t_e	1049.	5
Density		
g/ml 20°C	0.729	2
d_4^t 25	0.725	2
30	0.721	4
a	0.745	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.418	2
25	1.416	2
30	1.413	4
"C"	0.7626	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 31 to	6.95084	5
B 147 °C	1355.2	5
C	217.	5
A* 31 to	1.39076	5
B* 138 °C	1272.8	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.34881	5
B' 31 °C	1559.4	5
C'	235.	5
A'* 15 to	1.74623	5
B'* 31 °C	1459.8	5
Ac 147 to	7.3617	5
Bc t_c °C	1671.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	127.86	5

		Ref.
dt/dP °C/mm		
25°C	0.8401	5
BP	0.0467	4
t_e	0.0363	5
30 mm	0.6548	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.66	5
30 mm	83.22	5
BP	71.32	5
t_e	69.73	5
t_e (d, e)	69.67	5
ΔHv/T_e	19.51	5
d 31 to	87.48	5
e 128 °C	0.1393	5
d' 15 to	85.60	5
e' 31 °C	0.0779	5
d_c g/ml	0.246	5
v_c ml/g	4.057	5
t_c °C	287.	5
P_c mm	19646.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.48	5
γ 30	21.50	5
40	20.54	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

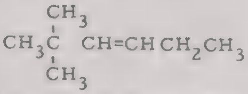
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 127

NAME	2,2-Dimethyl-cis-3-hexene	STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CH\,CH_2CH_3$$

Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C	-137.350	2
F.P. 100%		
B.P. °C		
760 mm	105.43	2
100	47.59	4
30	22.07	4
10	2.71	5
1	-29.23	5
Pressure mm 25°C	34.89	5
t_e	1019.	5
Density g/ml 20°C	0.7128	2
d^t_4 25	0.7086	2
30	0.7044	4
a	0.7295	4
b	-0.0_383	4
Ref. Index n_D 20°C	1.4099	2
25	1.4074	2
30	1.4049	4
"C"	0.7657	4
MR (Obs.)	38.99	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0535	2
Dielectric		
A 22 to	6.93979	5
B 134 °C	1316.7	5
C	218.97	5
A* 22 to	1.39110	5
B* 126 °C	1236.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 134 to	7.3508	5
Bc t_c °C	1622.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	115.93	5

		Ref.
dt/dP °C/mm		
25°C	0.5627	5
BP	0.0457	4
t_e	0.0363	5
30 mm	0.6388	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.17	5
30 mm	80.57	5
BP	69.08	5
t_e	67.67	5
t_e (d, e)	67.63	5
ΔHv/T_e	19.51	5
d 22 to	83.62	5
e 125 °C	0.1379	5
d' to		
e' °C		
d_c g/ml	0.242	5
v_c ml/g	4.130	5
t_c °C	269.	5
P_c mm	18677.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9411	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	20.54	5
30	19.58	5
40	18.64	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$ + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

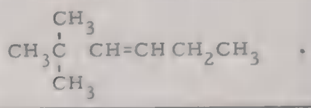
PURIFICATION: API

LITERATURE REFERENCES:

No. 128

NAME	2,2-Dimethyl-trans-3-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH{=}CH\ CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	100.85	2
100	43.64	4
30	18.40	4
10	-0.74	5
1	-32.33	5
Pressure mm 25°C	42.09	5
t_e	1006.	5
Density g/ml 20°C	0.7039	2
d_4^t 25	0.6995	2
30	0.6949	4
a	0.7218	4
b	-0.0_388	4
Ref. Index n_D 20°C	1.4063	2
25	1.4037	2
30	1.4011	4
"C"	0.7689	4
MR (Obs.)	39.18	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0544	2
Dielectric		
A 15 to	6.93699	5
B 127 °C	1300.8	5
C	219.84	5
A* 15 to	1.39334	5
B* 120 °C	1221.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 127 to	7.3479	5
Bc t_c °C	1601.	5
Cc	258.	5
Cryos. A° consts. B°		
t_e °C	110.77	5

		Ref.
dt/dP °C/mm		
25°C	0.4755	5
BP	0.0452	4
t_e	0.0363	5
30 mm	0.6317	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.56	5
30 mm	79.47	5
BP	68.14	5
t_e	66.81	5
t_e (d, e)	66.78	5
ΔHv/T_e	19.53	5
d 15 to	81.99	5
e 120 °C	0.1374	5
d' to		
e' °C		
d_c g/ml	0.239	5
v_c ml/g	4.189	5
t_c °C	260.	5
P_c mm	18108.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9415	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	19.53	5
γ 30	18.54	5
40	17.58	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	121.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

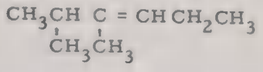
PURIFICATION: API

LITERATURE REFERENCES:

No. 129

NAME	2, 3-Dimethyl-cis-3-hexene
Mole % Pur.	
Ref.	
Molecular Formula	C_8H_{16} •
Molecular Weight	112.208

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\,\underset{CH_3}{C}=CHCH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	114.	2
100	55.05	4
30	29.03	4
10	9.17	5
1	-24.09	5
Pressure mm 25°C	24.33	5
t_e	1043.	5
Density g/ml 20°C	0.728	2
d_4^t 25	0.724	2
30	0.720	4
a	0.744	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.416	2
25	1.414	2
30	1.402	4
"C"	0.7602	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 29 to	6.95106	5
B 145 °C	1348.6	5
C	217.34	5
A* 29 to	1.39312	5
B* 140 °C	1266.7	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.35098	5
B' 29 °C	1552.9	5
C'	235.34	5
A'* 15 to	1.74916	5
B'* 29 °C	1453.3	5
Ac 145 to	7.3620	5
Bc t_c °C	1663.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	125.59	5

		Ref.
dt/dP °C/mm		
25°C	0.7791	5
BP	0.0465	4
t_e	0.0363	5
30 mm	0.6516	5
ΔHm cal/g		
ΔHv cal/g 25°C	83.06	5
30 mm	82.76	5
BP	70.94	5
t_e	69.38	5
t_e (d, e)	69.33	5
ΔHv/T_e	19.52	5
d 29 to	86.80	5
e 135 °C	0.1391	5
d' 20 to	84.95	5
e' 29 °C	0.0755	5
d_c g/ml	0.247	5
v_c ml/g	4.05	5
t_c °C	284.	5
P_c mm	19592.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9403	5
t_c	0.256	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g to °K h		
f' g' to °K h'		
m n to °K o		
m' n' to °K o'		
Surface tension dynes/cm. 20°C	22.25	5
γ 30	21.28	5
40	20.41	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

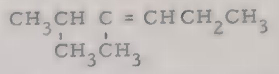
PURIFICATION: API

LITERATURE REFERENCES:

No. 130

NAME	2, 3-Dimethyl-trans-3-hexene				
Mole % Pur.		Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	

STRUCTURAL FORMULA



$$CH_3\underset{CH_3}{CH}\ \underset{CH_3}{C}=CHCH_2CH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	114.	2
100	55.05	4
30	29.03	4
10	9.17	5
1	-24.09	5
Pressure		
mm 25°C	24.33	5
t_e	1043.	5
Density		
g/ml 20°C	0.728	2
d_4^t 25	0.724	2
30	0.720	4
a	0.744	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.416	2
25	1.414	2
30	1.402	4
"C"	0.7602	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 29 to	6.95106	5
B 145 °C	1348.6	5
C	217.34	5
A* 29 to	1.39312	5
B* 140 °C	1266.7	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.35098	5
B' 29 °C	1552.9	5
C'	235.34	5
A'* 15 to	1.74916	5
B'* 29 °C	1453.3	5
Ac 145 to	7.3620	5
Bc t_c °C	1663.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	125.59	5

		Ref.
dt/dP		
°C/mm		
25°C	0.7791	5
BP	0.0465	4
t_e	0.0363	5
30 mm	0.6516	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.06	5
30 mm	82.76	5
BP	70.94	5
t_e	69.38	5
t_e (d, e)	69.33	5
$\Delta Hv/T_e$	19.52	5
d 29 to	86.80	5
e 135 °C	0.1391	5
d' 20 to	84.95	5
e' 29 °C	0.0755	5
d_c g/ml	0.247	5
v_c ml/g	4.05	5
t_c °C	284.	5
P_c mm	19592.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9403	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.25	5
γ 30	21.28	5
40	20.41	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

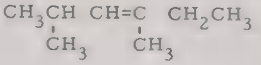
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 131

NAME	2,4-Dimethyl-cis-3-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3\underset{CH_3}{CH}\ CH{=}\underset{CH_3}{C}\ CH_2CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	109.0	2
100	50.69	4
30	24.96	4
10	5.44	5
1	-26.78	5
Pressure mm 25°C	30.06	5
t_e	1029.	5
Density g/ml 20°C	0.7178	2
d^t_4 25	0.7135	2
30	0.7095	4
a	0.7343	4
b	$-0.0_{3}82$	4
Ref. Index n_D 20°C	1.4140	2
25	1.4114	2
30	1.4088	4
"C"	0.7675	4
MR (Obs.)	39.06	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0551	2
Dielectric		
A 20 to	6.94402	5
B 138 °C	1329.8	5
C	218.29	5
A* 20 to	1.39145	5
B* 135 °C	1248.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 138 to	7.3549	5
Bc t_c °C	1639.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	119.96	5

		Ref.
dt/dP °C/mm 25°C	0.6431	5
BP	0.0460	4
t_e	0.0363	5
30 mm	0.6441	5
ΔHm cal/g		
ΔHv cal/g 25°C	81.47	5
30 mm	81.47	5
BP	69.84	5
t_e	68.38	5
t_e (d, e)	68.32	5
$\Delta Hv/T_e$	19.51	5
d 20 to	84.93	5
e 130 °C	0.1384	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.109	5
t_c °C	275.	5
P_c mm	18980.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9407	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.12	5
30	20.16	5
40	19.21	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

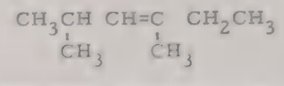
PURIFICATION: API

LITERATURE REFERENCES:

No. 132

NAME	2, 4-Dimethyl-trans-3-hexene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\ CH{=}\underset{CH_3}{C}\ CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	107.6	2
100	49.50	4
30	23.86	4
10	4.40	5
1	-27.70	5
Pressure		
mm 25°C	31.82	5
t_e	1025.	5
Density		
g/ml 20°C	0.7145	2
d_4^t 25	0.7101	2
30	0.7056	4
a	0.7323	4
b	-0.0_388	4
Ref. Index		
n_D 20°C	1.4126	2
25	1.4101	2
30	1.4076	4
"C"	0.7686	4
MR (Obs.)	39.13	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0554	2
Dielectric		
A 23 to	6.94445	5
B 135 °C	1325.4	5
C	218.56	5
A* 23 to	1.39341	5
B* 130 °C	1244.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 135 to	7.3551	5
Bc t_c °C	1632.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	118.37	5

		Ref.
dt/dP °C/mm		
25°C	0.6109	5
BP	0.0459	4
t_e	0.0363	5
30 mm	0.6419	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.00	5
30 mm	81.16	5
BP	69.57	5
t_e	68.13	5
t_e (d, e)	68.08	5
ΔHv/T_e	19.52	5
d 23 to	84.46	5
e 130 °C	0.1383	5
d' to		
e' °C		
d_c g/ml	0.240	5
v_c ml/g	4.161	5
t_c °C	272.	5
P_c mm	18641.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9409	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	20.74	5
30	19.71	5
40	18.71	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

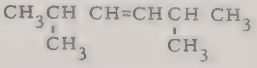
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 133

NAME	2,5-Dimethyl-cis-3-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3\underset{\displaystyle CH_3}{CH}\,CH{=}CH\,\underset{\displaystyle CH_3}{CH}\,CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	102.	2
100	44.62	4
30	19.31	4
10	0.1120	5
1	-31.56	5
Pressure		
mm 25°C	40.18	5
t_e	1009.	5
Density		
g/ml 20°C	0.710	2
d^t_4 25	0.706	2
30	0.702	4
a	0.726	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.406	2
25	1.404	2
30	1.402	4
"C"	0.7618	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A 15 to	6.93698	5
B 130 °C	1304.5	5
C	219.62	5
A* 15 to	1.39205	5
B* 120 °C	1224.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.3483	5
Bc t_c °C	1608.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	112.07	5

		Ref.
dt/dP		
°C/mm		
25°C	0.4958	5
BP	0.0453	4
t_e	0.0363	5
30 mm	0.6335	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.96	5
30 mm	79.73	5
BP	68.37	5
t_e	67.03	5
t_e (d, e)	66.99	5
$\Delta Hv/T_e$	19.52	5
d 15 to	82.38	5
e 120 °C	0.1374	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.103	5
t_c °C	264.	5
P_c mm	18625.	5
PV/RT		
25°C	0.9989	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9414	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	20.22	5
γ 30	19.31	5
40	18.42	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

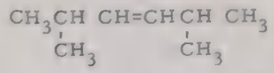
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 134

NAME	2,5-Dimethyl-trans-3-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3\underset{CH_3}{CH}\ CH{=}CH\ \underset{CH_3}{CH}\ CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	102.	2
100	44.62	4
30	19.31	4
10	0.1120	5
1	-31.56	5
Pressure		
mm 25°C	40.18	5
t_e	1009.	5
Density		
g/ml 20°C	0.710	2
d_4^t 25	0.706	2
30	0.702	4
a	0.726	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.406	2
25	1.404	2
30	1.402	4
"C"	0.7618	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A 15 to	6.93698	5
B 130 °C	1304.5	5
C	219.62	5
A* 15 to	1.39205	5
B* 120 °C	1224.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 130 to	7.3483	5
Bc t_c °C	1608.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	112.07	5

		Ref.
dt/dP		
°C/mm		
25°C	0.4958	5
BP	0.0453	4
t_e	0.0363	5
30 mm	0.6335	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.96	5
30 mm	79.73	5
BP	68.37	5
t_e	67.03	5
t_e (d, e)	66.99	5
ΔHv/T_e	19.52	5
d 15 to	82.38	5
e 120 °C	0.1374	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.103	5
t_c °C	264.	5
P_c mm	18625.	5
PV/RT		
25°C	0.9989	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9414	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	20.22	5
γ 30	19.31	5
40	18.42	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

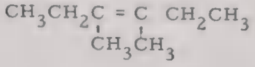
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 135

NAME	3, 4-Dimethyl-cis-3-hexene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$\begin{array}{l} CH_3CH_2C = C\ \ CH_2CH_3 \\ \qquad\quad\ CH_3CH_3 \end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	122.	2
100	62.00	4
30	35.50	4
10	15.27	5
1	-18.61	5
Pressure		
mm 25°C	17.33	5
t_e	1066.	5
Density		
g/ml 20°C	0.747	2
d_4^t 25	0.743	2
30	0.739	4
a	0.763	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.430	2
25	1.428	2
30	1.425	4
"C"	0.7644	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.057	2
Dielectric		
A 36 to	6.95905	5
B 156 °C	1377.7	5
C	215.82	5
A* 36 to	1.39265	5
B* 145 °C	1294.3	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.35168	5
B' 36 °C	1582.1	5
C'	233.82	5
A'* 20 to	1.74680	5
B'* 36 °C	1482.4	5
Ac 156 to	7.3700	5
Bc t_c °C	1700.	5
Cc	257.	5
Cryos. A°		
consts. B°		
t_e °C	134.63	5

		Ref.
dt/dP		
°C/mm		
25°C	1.0610	5
BP	0.0473	4
t_e	0.0363	5
30 mm	0.6637	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.63	5
30 mm	84.76	5
BP	72.64	5
t_e	70.94	5
t_e (d, e)	70.87	5
ΔHv/T_e	19.52	5
d 36 to	89.74	5
e 135 °C	0.1401	5
d' 20 to	87.70	5
e' 36 °C	0.0826	5
d_c g/ml	0.252	5
v_c ml/g	3.970	5
t_c °C	299.	5
P_c mm	20507.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9396	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	24.79	5
γ 30	23.73	5
40	22.71	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

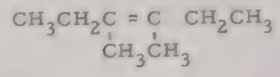
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 136

NAME	3,4-Dimethyl-trans-3-hexene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$$\begin{array}{c}CH_3CH_2C = C\ \ CH_2CH_3\\ \quad\ \ CH_3CH_3\end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	122.	2
100	62.00	4
30	35.50	4
10	15.27	5
1	-18.61	5
Pressure mm 25°C	17.33	5
t_e	1066.	5
Density g/ml 20°C	0.747	2
d_4^t 25	0.743	2
30	0.739	4
a	0.763	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.430	2
25	1.428	2
30	1.425	4
"C"	0.7644	4
MR (Obs.)	38.8	2
MR (Calc.)	38.677	5
(nD-d/2)	1.057	2
Dielectric		
A 36 to	6.95905	5
B 156 °C	1377.7	5
C	215.82	5
A* 36 to	1.39265	5
B* 145 °C	1294.3	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.35168	5
B' 36 °C	1582.1	5
C'	233.82	5
A'* 20 to	1.74680	5
B'* 36 °C	1482.4	5
Ac 156 to	7.3700	5
Bc t_c °C	1700.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	134.63	5

		Ref.
dt/dP °C/mm		
25°C	1.0610	5
BP	0.0473	4
t_e	0.0363	5
30 mm	0.6637	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.63	5
30 mm	84.76	5
BP	72.64	5
t_e	70.94	5
t_e (d, e)	70.87	5
ΔHv/T_e	19.52	5
d 36 to	89.74	5
e 135 °C	0.1401	5
d' 20 to	87.70	5
e' 36 °C	0.0826	5
d_c g/ml	0.252	5
v_c ml/g	3.970	5
t_c °C	299.	5
P_c mm	20507.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9396	5
t_c	0.256	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C (B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	24.79	5
30	23.73	5
40	22.71	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	127.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

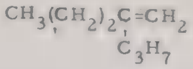
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 137

NAME	2-n-Propyl-1-pentene					**STRUCTURAL FORMULA**
Mole % Pur.		Ref.	Molecular Formula C_8H_{16}		Molecular Weight 112.208	



$CH_3(CH_2)_2\underset{C_3H_7}{C}{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	117.7	2
100	58.25	4
30	32.00	4
10	-11.97	5
1	-21.58	5
Pressure mm 25°C	20.83	5
t_e	1054.0	5
Density g/ml 20°C	0.7240	2
d_4^t 25	0.7198	2
30	0.7156	4
a	0.7408	4
b	-0.0_3834	4
Ref. Index n_D 20°C	1.4136	2
25	1.4111	2
30	1.4085	4
"C"	0.7603	4
MR (Obs.)	38.69	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0516	2
Dielectric		
A 32 to 148 °C	6.9535	5
B	1361.6	5
C	216.64	5
A* 32 to 138 °C	1.3916	5
B*	1279.0	5
K		
c		
t_k to °C		
t_x		
A' 20 to 32 °C	7.350	5
B'	1566.0	5
C'	234.64	5
A'* 20 to 32 °C	1.7467	5
B'*	1466.27	5
Ac 148 to t_c °C	7.3638	5
Bc	1677.4	5
Cc	256.71	5
Cryos. consts. A° B°		
t_e °C	129.78	5

		Ref.
dt/dP °C/mm 25°C	0.8975	5
BP	0.0469	4
t_e	0.0363	5
30 mm	0.6573	5
ΔHm cal/g		
ΔHv cal/g 25°C	84.22	5
30 mm	83.66	5
BP	71.69	5
t_e	70.07	5
t_e (d, e)	70.01	5
$\Delta Hv/T_e$	19.51	5
d 32 to 130 °C	88.13	5
e	0.1397	5
d' 20 to 32 °C	86.20	5
e'	0.0794	5
d_c g/ml	0.243	5
v_c ml/g	4.123	5
t_c °C	288.	5
P_c mm	19365.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9400	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v A^v to °C		
(B^v) (A^v) to °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	21.87	5
30	20.86	5
40	19.89	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	123.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

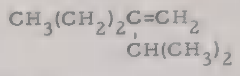
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 138

NAME	2-Isopropyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3(CH_2)_2C(=CH_2)CH(CH_3)_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	113.	2
100	54.18	4
30	28.22	4
10	8.40	5
1	-24.78	5
Pressure mm 25°C	25.38	5
t_e	1040.	5
Density g/ml 20°C	0.725	2
d_4^t 25	0.721	2
30	0.717	4
a	0.741	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.414	2
25	1.412	2
30	1.409	4
"C"	0.7599	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.052	2
Dielectric		
A 25 to	6.94966	5
B 144 °C	1344.9	5
C	217.53	5
A* 25 to	1.39279	5
B* 134 °C	1263.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 144 to	7.3606	5
Bc t_c °C	1658.	5
Cc	257.	5
Cryos. consts. A° B°		
t_e °C	124.47	5

		Ref.
dt/dP °C/mm		
25°C	0.7497	5
BP	0.0464	4
t_e	0.0363	5
30 mm	0.6501	5
ΔHm cal/g		
ΔHv cal/g 25°C	82.95	5
30 mm	82.50	5
BP	70.72	5
t_e	69.18	5
t_e (d, e)	69.13	5
ΔHv/T_e	19.52	5
d 25 to	86.42	5
e 124 °C	0.1390	5
d' to		
e' °C		
d_c g/ml	0.246	5
v_c ml/g	4.061	5
t_c °C	282.	5
P_c mm	19451.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9404	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.99	5
γ 30	21.02	5
40	20.08	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75 T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

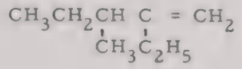
PURIFICATION: API

LITERATURE REFERENCES:

No. 139

NAME	2-Ethyl-3-methyl-1-pentene			
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	

STRUCTURAL FORMULA



$CH_3CH_2CH(CH_3)C(C_2H_5)=CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.5	2
100	53.73	4
30	27.79	4
10	7.99	5
1	-25.16	5
Pressure mm 25°C	25.96	5
t_e	1039.	5
Density g/ml 20°C	0.729	2
d_4^t 25	0.725	2
30	0.721	4
a	0.745	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.4142	2
25	1.4118	2
30	1.4094	4
"C"	0.7561	4
MR (Obs.)	38.5	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 25 to	6.94746	5
B 143 °C	1342.5	5
C	217.62	5
A* 25 to	1.39112	5
B* 134 °C	1260.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 143 to	7.3586	5
Bc t_c °C	1656.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	123.91	5

		Ref.
dt/dP °C/mm		
25°C	0.7348	5
BP	0.0464	4
t_e	0.0363	5
30 mm	0.6495	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.73	5
30 mm	82.35	5
BP	70.59	5
t_e	69.06	5
t_e (d, e)	69.00	5
ΔHv/T_e	19.51	5
d 25 to	86.20	5
e 124 °C	0.1388	5
d' to		
e' °C		
d_c g/ml	0.248	5
v_c ml/g	4.038	5
t_c °C	282.	5
P_c mm	19563.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9404	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	22.48	5
γ 30	21.50	5
40	20.54	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

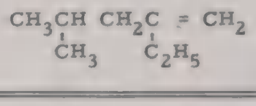
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 140

NAME	2-Ethyl-4-methyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3\underset{CH_3}{CH}\;CH_2\underset{C_2H_5}{C} = CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.3	2
100	51.82	4
30	26.02	4
10	6.32	5
1	-26.66	5
Pressure mm 25°C	28.46	5
t_e	1033.	5
Density g/ml 20°C	0.7195	2
d_4^t 25	0.7152	2
30	0.7109	4
a	0.7367	4
b	-0.0_385	4
Ref. Index n_D 20°C	1.4105	2
25	1.4080	2
30	1.4053	4
"C"	0.7596	4
MR (Obs.)	38.68	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0508	2
Dielectric		
A 20 to 139 °C	6.94556	5
B	1334.6	5
C	218.	5
A* 20 to 130 °C	1.39159	5
B*	1253.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 139 to t_c °C	7.3563	5
Bc	1644.	5
Cc	257.	5
Cryos. consts. A°		
B°		
t_e °C	121.42	5

		Ref.
dt/dP °C/mm		
25°C	0.6758	5
BP	0.0462	4
t_e	0.0363	5
30 mm	0.6461	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.95	5
30 mm	81.80	5
BP	70.12	5
t_e	68.63	5
t_e (d, e)	68.58	5
ΔHv/T_e	19.51	5
d 20 to 121 °C	85.41	5
e	0.1386	5
d' to °C		
e'		
d_c g/ml	0.242	5
v_c ml/g	4.128	5
t_c °C	277.	5
P_c mm	18963.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9406	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.33	5
30	20.31	5
40	19.33	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

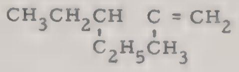
PURIFICATION: API

LITERATURE REFERENCES:

No. 141

NAME	3-Ethyl-2-methyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA


$$\begin{matrix} CH_3CH_2CH & C = CH_2 \\ C_2H_5 & CH_3 \end{matrix}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.	2
100	51.56	4
30	25.78	4
10	6.10	5
1	-26.86	5
Pressure mm 25°C	28.82	5
t_e	1032.	5
Density g/ml 20°C	0.730	2
d_4^t 25	0.726	2
30	0.722	4
a	0.746	4
b	-0.038	4
Ref. Index n_D 20°C	1.415	2
25	1.413	2
30	1.410	4
"C"	0.7564	4
MR (Obs.)	38.5	2
MR (Calc.)	38.677	5
(nD-d/2)	1.050	2
Dielectric		
A 20 to 141 °C	6.94544	5
B	1333.6	5
C	218.	5
A* 20 to 131 °C	1.39179	5
B*	1252.4	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to		
B'* °C		
Ac 141 to t_c °C	7.3568	5
Bc	1645.	5
Cc	258.	5
Cryos. A° consts. B°		
t_e °C	121.08	5

		Ref.
dt/dP °C/mm		
25°C	0.6682	5
BP	0.0461	4
t_e	0.0363	5
30 mm	0.6456	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.84	5
30 mm	81.73	5
BP	70.07	5
t_e	68.59	5
t_e (d, e)	68.54	5
$\Delta Hv/T_e$	19.52	5
d 20 to 121 °C	85.30	5
e	0.1385	5
d' to °C		
e'		
d_c g/ml	0.249	5
v_c ml/g	4.020	5
t_c °C	279.	5
P_c mm	19545.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9407	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. 20°C	22.60	5
γ 30	21.61	5
40	20.65	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

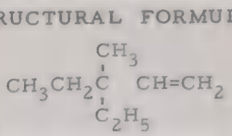
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 142

NAME	3-Ethyl-3-methyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208


$$CH_3CH_2\overset{\overset{CH_3}{|}}{\underset{\underset{C_2H_5}{|}}{C}}\;CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure		
mm 25°C	26.48	5
t_e	1038.	5
Density		
g/ml 20°C	0.7305	2
d_4^t 25	0.7264	2
30	0.7223	4
a	0.7469	4
b	-0.0_381	4
Ref. Index		
n_D 20°C	1.418	2
25	1.416	2
30	1.413	4
"C"	0.7611	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.053	2
Dielectric		
A 20 to	6.94826	5
B 143 °C	1341.1	5
C	217.72	5
A* 20 to	1.39246	5
B* 133 °C	1259.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 143 to	7.3594	5
Bc t_c °C	1654.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP		
°C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.45	5
30 mm	82.25	5
BP	70.50	5
t_e	68.99	5
t_e (d, e)	68.93	5
$\Delta Hv/T_e$	19.52	5
d 20 to	86.05	5
e 123 °C	0.1388	5
d' to		
e' °C		
d_c g/ml	0.248	5
v_c ml/g	4.039	5
t_c °C	282.	5
P_c mm	19557.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.66	5
γ 30	21.65	5
40	20.67	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

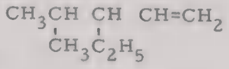
PURIFICATION: API

LITERATURE REFERENCES:

No. 143

NAME	3-Ethyl-4-methyl-1-pentene
Mole % Pur.	
Ref.	
Molecular Formula	C_8H_{16}
Molecular Weight	112.208

STRUCTURAL FORMULA



$$\underset{CH_3}{CH_3CH}\ \underset{C_2H_5}{CH}\ CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	107.5	2
100	49.40	4
30	23.77	4
10	4.31	5
1	-27.79	5
Pressure mm 25°C	31.97	5
t_e	1025.	5
Density g/ml 20°C	0.7200	2
d_4^t 25	0.7158	2
30	0.7116	4
a	0.7367	4
b	-0.0383	4
Ref. Index n_D 20°C	1.4097	2
25	1.4072	2
30	1.4047	4
"C"	0.7577	4
MR (Obs.)	38.59	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0497	2
Dielectric		
A 20 to	6.94340	5
B 137°C	1324.7	5
C	218.57	5
A* 20 to	1.39246	5
B* 137°C	1243.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 137 to	7.3545	5
Bc t_c °C	1633.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	118.26	5

		Ref.
dt/dP °C/mm		
25°C	0.6083	5
BP	0.0459	4
t_e	0.0363	5
30 mm	0.6418	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.95	5
30 mm	81.12	5
BP	69.54	5
t_e	68.10	5
t_e (d, e)	68.06	5
ΔHv/T_e	19.52	5
d 20 to	84.40	5
e 130 °C	0.1382	5
d' to		
e' °C		
d_c g/ml	0.245	5
v_c ml/g	4.088	5
t_c °C	273.	5
P_c mm	19008.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9409	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.38	5
30	20.40	5
40	19.43	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

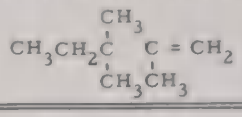
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 144

NAME	2,3,3-Trimethyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$$CH_3CH_2\overset{\displaystyle CH_3}{\underset{\displaystyle CH_3}{C}}\,\underset{\displaystyle CH_3}{C}=CH_2$$

		Ref.
F.P. °C	-69.	2
F.P. 100%		
B.P. °C		
760 mm	108.31	2
100	50.12	4
30	24.45	4
10	4.96	5
1	-27.20	5
Pressure mm 25°C	30.87	5
t_e	1027.	5
Density g/ml 20°C	0.7352	2
d_4^t 25	0.7308	2
30	0.7263	4
a	0.7529	4
b	-0.0_388	4
Ref. Index n_D 20°C	1.4174	2
25	1.4151	2
30	1.4128	4
"C"	0.7552	4
MR (Obs.)	38.41	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0498	2
Dielectric		
A 20 to 139 °C	6.94586	5
B	1328.2	5
C	218.42	5
A* 20 to 130 °C	1.39405	5
B*	1247.2	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 139 to t_c °C	7.3573	5
Bc	1638.	5
Cc	258.	5
Cryos. consts. A°, B°		
t_e °C	119.17	5

		Ref.
dt/dP °C/mm		
25°C	0.6276	5
BP	0.0459	4
t_e	0.0363	5
30 mm	0.6429	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.27	5
30 mm	81.35	5
BP	69.75	5
t_e	68.30	5
t_e (d, e)	68.25	5
$\Delta Hv/T_e$	19.53	5
d 20 to 125 °C	84.73	5
e	0.1383	5
d' to °C		
e'		
d_c g/ml	0.25	5
v_c ml/g	4.0	5
t_c °C	276.	5
P_c mm	19451.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9408	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^V to °C		
A^V		
(B^V) to °C		
(A^V)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	23.25	5
30	22.14	5
40	21.06	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

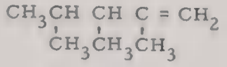
PURIFICATION: API

LITERATURE REFERENCES:

No. 145

NAME	2, 3, 4-Trimethyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\underset{CH_3}{CH}\,\underset{CH_3}{CH}\,\underset{CH_3}{C}=CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	108.	2
100	49.82	4
30	24.15	4
10	4.67	5
1	-27.47	5
Pressure		
mm 25°C	31.35	5
t_e	1026.	5
Density		
g/ml 20°C	0.729	2
d_4^t 25	0.725	2
30	0.721	4
a	0.745	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.415	2
25	1.413	2
30	1.411	4
"C"	0.7575	4
MR (Obs.)	38.6	2
MR (Calc.)	38.677	5
(nD-d/2)	1.051	2
Dielectric		
A 20 to 139 °C	6.9426	5
B	1326.1	5
C	218.48	5
A* 20 to 129 °C	1.39111	5
B*	1245.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 139 to t_c °C	7.3541	5
Bc	1636.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	118.83	5

		Ref.
dt/dP °C/mm		
25°C	0.6194	5
BP	0.0459	4
t_e	0.0363	5
30 mm	0.6427	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.10	5
30 mm	81.22	5
BP	69.63	5
t_e	68.19	5
t_e (d, e)	68.14	5
$\Delta Hv/T_e$	19.52	5
d 20 to 125 °C	84.55	5
e	0.1381	5
d' to °C		
e'		
d_c g/ml	0.249	5
v_c ml/g	4.015	5
t_c °C	276.	5
P_c mm	19460.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9408	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. 20°C	22.47	5
γ 30	21.50	5
40	20.54	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

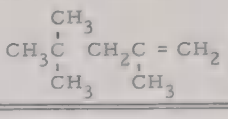
PURIFICATION: API

LITERATURE REFERENCES:

No. 146

NAME	2,4,4-Trimethyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\ CH_2\underset{CH_3}{C}=CH_2$$

		Ref.
F.P. °C	-93.480	2
F.P. 100%		
B.P. °C		
760 mm	101.44	2
100	44.14	4
30	18.87	4
10	-0.30	5
1	-31.93	5
Pressure mm 25°C	41.10	5
t_e	1007.	5
Density g/ml 20°C	0.7150	2
d_4^t 25	0.7108	2
30	0.7065	4
a	0.7319	4
b	-0.0_384	4
Ref. Index		
n_D 20°C	1.4086	2
25	1.4060	2
30	1.4034	4
"C"	0.7611	4
MR (Obs.)	38.76	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0511	2
Dielectric		
A 15 to	6.93714	5
B 129 °C	1302.8	5
C	219.73	5
A* 15 to	1.39284	5
B* 120 °C	1223.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 129 to	7.3486	5
Bc t_c °C	1606.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	111.43	5

		Ref.
dt/dP °C/mm		
25°C	0.4858	5
BP	0.0452	4
t_e	0.0363	5
30 mm	0.6326	5
ΔHm cal/g		
ΔHv cal/g		
25°C	78.75	5
30 mm	79.60	5
BP	68.26	5
t_e	66.93	5
t_e (d, e)	66.89	5
ΔHv/T_e	19.52	5
d 18 to	82.20	5
e 120 °C	0.1373	5
d' to		
e' °C		
d_c g/ml	0.244	5
v_c ml/g	4.10	5
t_c °C	264.	5
P_c mm	18658.	5
PV/RT		
25°C	0.9984	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9414	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	20.79	5
30	19.81	5
40	18.85	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

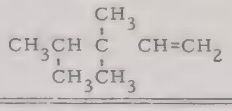
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 147

NAME	3, 3, 4-Trimethyl-1-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3CH(CH_3)C(CH_3)_2CH=CH_2$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	105.	2
100	47.24	4
30	21.76	4
10	2.42	5
1	-29.49	5
Pressure mm 25°C	35.46	5
t_e	1018.	5
Density g/ml 20°C	0.729	2
d^t_4 25	0.725	2
30	0.721	4
a	0.745	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.4144	2
25	1.4120	2
30	1.4096	4
"C"	0.7564	4
MR (Obs.)	38.5	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0499	2
Dielectric		
A 15 to	6.94133	5
B 135 °C	1315.8	5
C	219.	5
A* 15 to	1.39312	5
B* 120 °C	1235.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 135 to	7.3531	5
Bc t_c °C	1624.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	115.44	5

		Ref.
dt/dP °C/mm		
25°C	0.5543	5
BP	0.0456	4
t_e	0.0363	5
30 mm	0.6380	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.06	5
30 mm	80.50	5
BP	69.03	5
t_e	67.64	5
t_e (d, e)	67.59	5
$\Delta Hv/T_e$	19.53	5
d 15 to	83.50	5
e 125 °C	0.1378	5
d' to		
e' °C		
d_c g/ml	0.25	5
v_c ml/g	3.99	5
t_c °C	271.	5
P_c mm	19425.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9411	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	22.47	5
γ 30	21.50	5
40	20.55	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. 1. %/wt. u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\, T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

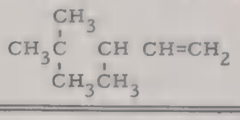
PURIFICATION: API

LITERATURE REFERENCES:

No. 148

NAME	3, 4, 4-Trimethyl-1-pentene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$CH_3\overset{CH_3}{\underset{CH_3}{C}}\underset{CH_3}{CH}\,CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	104.	2
100	46.36	4
30	20.94	4
10	1.65	5
1	-30.18	5
Pressure mm 25°C	36.97	5
t_e	1015.	5
Density g/ml 20°C	0.719	2
d_4^t 25	0.715	2
30	0.711	4
a	0.735	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.412	2
25	1.410	2
30	1.408	4
"C"	0.7628	4
MR (Obs.)	38.9	2
MR (Calc.)	38.677	5
(nD-d/2)	1.053	2
Dielectric		
A 15 to 133 °C	6.93989	5
B	1312.1	5
C	219.24	5
A* 15 to 120 °C	1.39277	5
B*	1231.9	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 133 to t_c °C	7.3514	5
Bc	1618.	5
Cc	258.	5
Cryos. A° consts. B°		
t_e °C	114.32	5

		Ref.
dt/dP °C/mm		
25°C	0.534	5
BP	0.0455	4
t_e	0.0363	5
30 mm	0.6365	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.69	5
30 mm	80.24	5
BP	68.81	5
t_e	67.43	5
t_e (d, e)	67.39	5
$\Delta Hv/T_e$	19.53	5
d 15 to 120 °C	83.13	5
e	0.1377	5
d' to °C		
e'		
d_c g/ml	0.247	5
v_c ml/g	4.055	5
t_c °C	268.	5
P_c mm	18987.	5
PV/RT		
25°C	1.1161	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9412	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	21.26	5
30	20.31	5
40	19.38	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	117.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

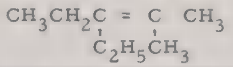
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 149

NAME	3-Ethyl-2-methyl-2-pentene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$$\begin{array}{c}CH_3CH_2\underset{C_2H_5}{C} = \underset{CH_3}{C}\ \ CH_3\end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	117.0	2
100	57.63	4
30	31.43	4
10	11.43	5
1	-22.07	5
Pressure mm 25°C	21.47	5
t_e	1052.	5
Density g/ml 20°C	0.739	2
d_4^t 25	0.735	2
30	0.731	4
a	0.755	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.4247	2
25	1.4222	2
30	1.4198	4
"C"	0.7637	4
MR (Obs.)	39.0	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0552	2
Dielectric		
A 31 to	6.95222	5
B 149 °C	1358.9	5
C	216.77	5
A* 31 to	1.39108	5
B* 139 °C	1276.4	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.34929	5
B' 31 °C	1563.2	5
C'	234.77	5
A'* 15 to	1.74633	5
B'* 31 °C	1463.5	5
Ac 149 to	7.3633	5
Bc t_c °C	1677.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	128.99	5

		Ref.
dt/dP °C/mm		
25°C	0.8733	5
BP	0.0468	4
t_e	0.0363	5
30 mm	0.6563	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.98	5
30 mm	83.48	5
BP	71.55	5
t_e	69.94	5
t_e (d, e)	69.88	5
$\Delta Hv/T_e$	19.51	5
d 31 to	87.86	5
e 129 °C	0.1394	5
d' 15 to	85.95	5
e' 31 °C	0.0789	5
d_c g/ml	0.250	5
v_c ml/g	3.996	5
t_c °C	290.	5
P_c mm	20052.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. 20°C	23.74	5
γ 30	22.72	5
40	21.72	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	127.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

$T_R = 0.75\,T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

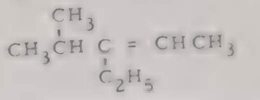
PURIFICATION: API

LITERATURE REFERENCES:

No. 150

NAME	3-Ethyl-4-methyl-cis-2-pentene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$$CH_3\overset{CH_3}{CH}\underset{C_2H_5}{C}=CHCH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	116.	2
100	56.76	4
30	30.61	4
10	10.66	5
1	-22.77	5
Pressure mm 25°C	22.40	5
t_e	1049.	5
Density g/ml 20°C	0.739	2
d_4^t 25	0.735	2
30	0.731	4
a	0.755	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.424	2
25	1.422	2
30	1.419	4
"C"	0.7625	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 31 to	6.95084	5
B 148 °C	1355.2	5
C	217.	5
A* 31 to	1.39076	5
B* 138 °C	1272.8	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.34881	5
B' 31 °C	1559.4	5
C'	235.	5
A'* 15 to	1.74623	5
B'* 31 °C	1459.8	5
Ac 148 to	7.3620	5
Bc t_c °C	1672.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	127.86	5

$T_R = 0.75\, T_c$

		Ref.
dt/dP °C/mm 25°C	0.8401	5
BP	0.0467	4
t_e	0.0363	5
30 mm	0.6548	5
ΔHm cal/g		
ΔHv cal/g 25°C	83.66	5
30 mm	83.22	5
BP	71.33	5
t_e	69.74	5
t_e (d, e)	69.68	5
$\Delta Hv/T_e$	19.51	5
d 31 to	87.48	5
e 128 °C	0.1392	5
d' 15 to	85.60	5
e' 31 °C	0.0779	5
d_c g/ml	0.250	5
v_c ml/g	3.995	5
t_c °C	289.	5
P_c mm	20021.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	23.74	5
30	22.72	5
40	21.72	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.1.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

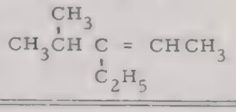
PURIFICATION: API

LITERATURE REFERENCES:

No. 151

NAME	3-Ethyl-4-methyl-trans-2-pentene
Mole % Pur.	
Ref.	
Molecular Formula	C_8H_{16}
Molecular Weight	112.208

STRUCTURAL FORMULA



$$CH_3CH(CH_3)C(C_2H_5) = CHCH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	114.3	2
100	55.31	4
30	29.27	4
10	9.40	5
1	-23.89	5
Pressure mm 25°C	24.03	5
t_e	1044.	5
Density g/ml 20°C	0.7350	2
d_4^t 25	0.7308	2
30	0.7266	4
a	0.7518	4
b	-0.0$_3$83	4
Ref. Index n_D 20°C	1.4210	2
25	1.4183	2
30	1.4158	4
"C"	0.7615	4
MR (Obs.)	38.71	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0535	2
Dielectric		
A 29 to	6.95117	5
B 146 °C	1349.7	5
C	217.28	5
A* 29 to	1.39291	5
B* 136 °C	1267.6	5
K		
c		
t_k to		
t_x °C		
A' 15 to	7.35081	5
B' 29 °C	1553.9	5
C'	235.28	5
A'* 15 to	1.74885	5
B'* 29 °C	1454.3	5
Ac 146 to	7.3622	5
Bc t_c °C	1665.	5
Cc	257.	5
Cryos. consts. A°		
B°		
t_e °C	125.93	5

		Ref.
dt/dP °C/mm		
25°C	0.7881	5
BP	0.0466	4
t_e	0.0363	5
30 mm	0.6520	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.16	5
30 mm	82.83	5
BP	71.00	5
t_e	69.44	5
t_e (d, e)	69.38	5
ΔHv/T_e	19.52	5
d 29 to	86.90	5
e 126 °C	0.1391	5
d' 15 to	85.05	5
e' 29 °C	0.0760	5
d_c g/ml	0.248	5
v_c ml/g	4.028	5
t_c °C	285.	5
P_c mm	19717.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9403	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.23	5
γ 30	22.17	5
40	21.15	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. 1.%/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

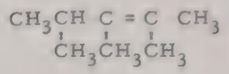
PURIFICATION: API

LITERATURE REFERENCES:

No. 152

NAME	2, 3, 4-Trimethyl-2-pentene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$\underset{CH_3}{CH_3CH}\ \underset{CH_3}{C}=\underset{CH_3}{C}\ CH_3$

		Ref.
F.P. °C	-113.3	2
F.P. 100%		
B.P. °C		
760 mm	116.26	2
100	57.02	4
30	30.86	4
10	10.90	5
1	-22.54	5
Pressure		
mm 25°C	22.11	5
t_e	1050.	5
Density		
g/ml 20°C	0.7434	2
d_4^t 25	0.7391	2
30	0.7348	4
a	0.7606	4
b	-0.0_385	4
Ref. Index		
n_D 20°C	1.4275	2
25	1.4249	2
30	1.4223	4
"C"	0.7639	4
MR (Obs.)	38.79	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0558	2
Dielectric		
A (31 to 149 °C)	6.95353	5
B	1356.9	5
C	217.	5
A* (31 to 138 °C)	1.39318	5
B*	1274.5	5
K		
c		
t_k to t_x °C		
A' (15 to 31 °C)	7.35138	5
B'	1561.2	5
C'	235.	5
A'* 15 to	1.74869	5
B'* 31 °C	1461.6	5
Ac (149 to t_c °C)	7.3646	5
Bc	1674.	5
Cc	257.	5
Cryos. A° consts. B°		
t_e °C	128.15	5

		Ref.
dt/dP °C/mm		
25°C	0.8499	5
BP	0.0467	4
t_e	0.0363	5
30 mm	0.6550	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.79	5
30 mm	83.33	5
BP	71.43	5
t_e	69.83	5
t_e (d, e)	69.77	5
$\Delta Hv/T_e$	19.52	5
d (31 to 135 °C)	87.63	5
e	0.1394	5
d' (15 to 31 °C)	85.74	5
e'	0.0782	5
d_c g/ml	0.250	5
v_c ml/g	3.997	5
t_c °C	289.	5
P_c mm	20011.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9401	5
t_c	0.256	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v) to (A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h (to °K)		
f' g' h' (to °K)		
m n o (to °K)		
m' n' o' (to °K)		
Surface tension dynes/cm. γ 20°C	24.31	5
30	23.19	5
40	22.11	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt. u.		
Dispersion	127.	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in ‡ Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.75\ T_c$

‡ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

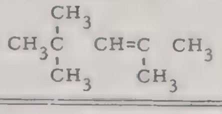
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 153

NAME	2, 4, 4-Trimethyl-2-pentene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208	



$$CH_3\overset{CH_3}{\underset{CH_3}{C}}\;CH{=}\underset{CH_3}{C}\;CH_3$$

		Ref.
F.P. °C	-106.330	2
F.P. 100%		
B.P. °C		
760 mm	104.91	2
100	47.15	4
30	21.67	4
10	2.33	5
1	-29.57	5
Pressure mm 25°C	35.62	5
t_e	1017.	5
Density g/ml 20°C	0.7218	2
d_4^t 25	0.7176	2
30	0.7133	4
a	0.7387	4
b	-0.0_384	4
Ref. Index n_D 20°C	1.4160	2
25	1.4135	2
30	1.4110	4
"C"	0.7668	4
MR (Obs.)	39.01	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0551	2
Dielectric		
A 15 to 134 °C	6.94038	5
B	1315.2	5
C	219.07	5
A* 15 to 120 °C	1.39226	5
B*	1234.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 134 to t_c °C	7.3517	5
Bc	1622.	5
Cc	258.	5
Cryos. consts. A°		
B°		
t_e °C	115.34	5

		Ref.
dt/dP °C/mm		
25°C	0.5523	5
BP	0.0456	4
t_e	0.0363	5
30 mm	0.6379	5
ΔHm cal/g		
ΔHv cal/g		
25°C	80.01	5
30 mm	80.46	5
BP	68.99	5
t_e	67.60	5
t_e (d, e)	67.56	5
ΔHv/T_e	19.52	5
d 15 to 120 °C	83.45	5
e	0.1378	5
d' to		
e' °C		
d_c g/ml	0.245	5
v_c ml/g	4.073	5
t_c °C	270.	5
P_c mm	18976.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9411	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.60	5
γ 30	20.59	5
40	19.60	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	125.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

T_R = 0.75 T_c

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

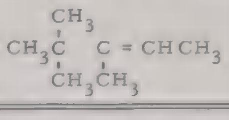
PURIFICATION: API

LITERATURE REFERENCES:

No. 154

NAME	3, 4, 4-Trimethyl-cis-2-pentene		
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

STRUCTURAL FORMULA



$$CH_3\overset{\overset{CH_3}{|}}{\underset{\underset{CH_3}{|}}{C}}\;\underset{\underset{CH_3}{|}}{C}=CHCH_3$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure		
mm 25°C	26.48	5
t_e	1038.	5
Density		
g/ml 20°C	0.739	2
d_4^t 25	0.735	2
30	0.731	4
a	0.755	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.423	2
25	1.421	2
30	1.418	4
"C"	0.7608	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 20 to	6.94826	5
B 144 °C	1341.1	5
C	217.72	5
A* 20 to	1.39246	5
B* 133 °C	1259.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 144 to	7.3598	5
Bc t_c °C	1655.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP		
°C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.58	5
30 mm	82.25	5
BP	70.51	5
t_e	68.99	5
t_e (d, e)	68.94	5
$\Delta Hv/T_e$	19.52	5
d 20 to	86.05	5
e 123 °C	0.1387	5
d' to		
e' °C		
d_c g/ml	0.252	5
v_c ml/g	3.969	5
t_c °C	283.	5
P_c mm	19940.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	23.74	5
γ 30	22.71	5
40	21.72	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

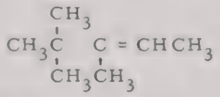
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 155

NAME	3,4,4-Trimethyl-trans-2-pentene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$CH_3C(CH_3)(CH_3)C(CH_3)=CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	112.	2
100	53.31	4
30	27.41	4
10	7.64	5
1	-25.47	5
Pressure mm 25°C	26.48	5
t_e	1038.	5
Density g/ml 20°C	0.739	2
d_4^t 25	0.735	2
30	0.731	4
a	0.755	4
b	-0.0_38	4
Ref. Index n_D 20°C	1.423	2
25	1.421	2
30	1.418	4
"C"	0.7608	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.054	2
Dielectric		
A 20 to	6.94826	5
B 144 °C	1341.1	5
C	217.72	5
A* 20 to	1.39246	5
B* 133 °C	1259.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 144 to	7.3598	5
Bc t_c °C	1655.	5
Cc	258.	5
Cryos. A° consts. B°		
t_e °C	123.34	5

		Ref.
dt/dP °C/mm		
25°C	0.7214	5
BP	0.0463	4
t_e	0.0363	5
30 mm	0.6486	5
ΔHm cal/g		
ΔHv cal/g		
25°C	82.58	5
30 mm	82.25	5
BP	70.51	5
t_e	68.99	5
t_e (d, e)	68.94	5
ΔHv/T_e	19.52	5
d 20 to	86.05	5
e 123 °C	0.1387	5
d' to		
e' °C		
d_c g/ml	0.252	5
v_c ml/g	3.969	5
t_c °C	283.	5
P_c mm	19940.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9405	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.74	5
γ 30	22.71	5
40	21.72	5
Parachor [P] 20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt. u.		
Dispersion	124.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

$T_R = 0.75\ T_c$

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

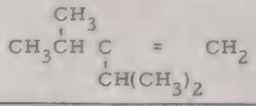
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 156

NAME	2-Isopropyl-3-methyl-1-butene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208



$\mathrm{CH_3\overset{\displaystyle CH_3}{CH}\;\underset{\displaystyle CH(CH_3)_2}{C} = CH_2}$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	104.	2
100	46.36	4
30	20.94	4
10	1.65	5
1	-30.18	5
Pressure		
mm 25°C	36.97	5
t_e	1015.	5
Density		
g/ml 20°C	0.722	2
d_4^t 25	0.718	2
30	0.714	4
a	0.738	4
b	-0.038	4
Ref. Index		
n_D 20°C	1.4085	2
25	1.4061	2
30	1.4037	4
"C"	0.7535	4
MR (Obs.)	38.4	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0475	2
Dielectric		
A 15 to	6.9399	5
B 133 °C	1312.1	5
C	219.24	5
A* 15 to	1.39277	5
B* 125 °C	1231.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 133 to	7.3515	5
Bc t_c °C	1618.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	114.32	5

$T_R = 0.75\ T_c$

		Ref.
dt/dP		
°C/mm		
25°C	0.5340	5
BP	0.0455	4
t_e	0.0363	5
30 mm	0.6365	5
ΔHm cal/g		
ΔHv cal/g		
25°C	79.69	5
30 mm	80.24	5
BP	68.81	5
t_e	67.44	5
t_e (d, e)	67.39	5
ΔHv/T_e	19.53	5
d 15 to	83.13	5
e 120 °C	0.1376	5
d' to		
e' °C		
d_c g/ml	0.247	5
v_c ml/g	4.04	5
t_c °C	269.	5
P_c mm	19096.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9412	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.62	5
γ 30	20.66	5
40	19.72	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

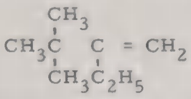
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 157

NAME	2-Ethyl-3, 3-dimethyl-1-butene 2-tert-Butyl-1-butene	STRUCTURAL FORMULA



$$\begin{matrix} & \mathrm{CH_3} & & \\ \mathrm{CH_3} & \mathrm{C} & \mathrm{C} & \mathrm{= CH_2} \\ & \mathrm{CH_3} & \mathrm{C_2H_5} & \end{matrix}$$

Mole % Pur.	Ref.	Molecular Formula C_8H_{16}	Molecular Weight 112.208

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	110.	2
100	51.56	4
30	25.78	4
10	6.10	5
1	-26.86	5
Pressure		
mm 25°C	28.82	5
t_e	1032.	5
Density		
g/ml 20°C	0.728	2
d_4^t 25	0.724	2
30	0.720	4
a	0.744	4
b	-0.0_38	4
Ref. Index		
n_D 20°C	1.4159	2
25	1.4135	2
30	1.4111	4
"C"	0.7601	4
MR (Obs.)	38.7	2
MR (Calc.)	38.677	5
(nD-d/2)	1.0519	2
Dielectric		
A 20 to	6.94544	5
B 141 °C	1333.6	5
C	218.	5
A* 20 to	1.39179	5
B* 131 °C	1252.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 141 to	7.3567	5
Bc t_c °C	1645.	5
Cc	258.	5
Cryos. A°		
consts. B°		
t_e °C	121.08	5

		Ref.
dt/dP		
°C/mm		
25°C	0.6682	5
BP	0.0461	4
t_e	0.0363	5
30 mm	0.6456	5
ΔHm cal/g		
ΔHv cal/g		
25°C	81.84	5
30 mm	81.73	5
BP	70.07	5
t_e	68.59	5
t_e (d, e)	68.53	5
ΔHv/T_e	19.52	5
d 20 to	85.30	5
e 121 °C	0.1385	5
d' to		
e' °C		
d_c g/ml	0.248	5
v_c ml/g	4.035	5
t_c °C	279.	5
P_c mm	19472.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9407	5
t_c	0.256	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.35	5
γ 30	21.37	5
40	20.42	5
Parachor [P]		
20°C		
30		
40		
Sugd.	335.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	122.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

T_R = 0.75 T_c

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 158

NAME	1-Nonene			STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula C_9H_{18}	Molecular Weight 126.234
				$CH_3(CH_2)_6CH=CH_2$

		Ref.
F.P. °C	-81.37	2
F.P. 100%		
B.P. °C		
760 mm	146.868	2
100	84.210	2
30	56.55	2
10	35.44	2
1	1.1	5
Pressure		
mm 25°C	5.339	5
t_e	1132.	5
Density		
g/ml 20°C	0.72922	2
d_4^t 25	0.72531	2
30	0.72140	4
a	0.74485	4
b	-0.0_3780	4
Ref. Index		
n_D 20°C	1.41572	2
25	1.41333	2
30	1.41094	4
"C"	0.7585	4
MR (Obs.)	43.415	2
MR (Calc.)	43.295	5
(nD-d/2)	1.05111	2
Dielectric		
A 25 to	6.95387	2
B 173 °C	1435.4	2
C	205.535	2
A* 25 to	1.42403	5
B* 165 °C	1352.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 173 to	7.1708	5
Bc t_c °C	1518.	5
Cc	211.	5
Cryos. A°		
consts. B°		
t_e °C	162.52	5

$T_R = 0.75\ T_c$

		Ref.
dt/dP		
°C/mm		
25°C	3.018	5
BP	0.04944	4
t_e	0.0362	5
30 mm	0.6928	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.83	5
30 mm	82.32	5
BP	69.58	5
t_e	67.48	5
t_e (d, e)	67.36	5
ΔHv/T_e	19.55	5
d 25 to	90.42	5
e 170 °C	0.1419	5
d' to		
e' °C		
d_c g/ml	0.25	5
v_c ml/g	4.0	5
t_c °C	321.	5
P_c mm	18000.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9463	5
t_e	0.9338	5
t_c	0.245	5
ΔHc kcal/m	1341.90	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	0.688	2
60	0.568	2
80	0.488	2
100	0.426	2
B^v 30 to	434.21	4
A^v 70 °C	$\bar{2}.4510$	4
(B^v) 70 to	388.81	4
(A^v) 110 °C	$\bar{2}.58744$	4
c_p liq. °K		
c_p vap. 300°K	0.38231	2
400	0.48204	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0247	4
n	600 °K	0.0013	4
o		-0.0_649	4
m'	700 to	0.1080	4
n'	1000 °K	0.0011	4
o'		-0.0_638	4
Surface tension			
dynes/cm. γ	20°C	21.83	5
	30	20.91	5
	40	20.01	5
Parachor [P]			
	20°C		
	30		
	40		
	Sugd.	374.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		114.4	2
Flash Point °C			
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 159

NAME	1-Decene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{20}$	Molecular Weight 140.260
			$CH_3(CH_2)_7CH=CH_2$

		Ref.
F.P. °C	-66.310	2
F.P. 100%		
B.P. °C		
760 mm	170.570	2
100	105.198	2
30	76.33	2
10	54.29	2
1	18.2	5
Pressure		
mm 25°C	1.632	5
t_e	1197.	5
Density		
g/ml 20°C	0.74081	2
d_4^t 25	0.73693	2
30	0.73305	4
a	0.75632	4
b	-0.0_3775	4
Ref. Index		
n_D 20°C	1.42146	2
25	1.41913	2
30	1.41675	4
"C"	0.7563	4
MR (Obs.)	48.059	2
MR (Calc.)	47.913	5
(nD-d/2)	1.05106	2
Dielectric		
A 25 to	6.96034	2
B 233 °C	1501.872	2
C	197.58	2
A* 76 to	1.45987	5
B* 199 °C	1417.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 233 to	7.8050	5
Bc t_c °C	2317.	5
Cc	302.	5
Cryos. A°		
consts. B°		
t_e °C	189.28	5

		Ref.
dt/dP		
°C/mm		
25°C	8.778	5
BP	0.05157	2
t_e	0.03615	5
30 mm	0.7231	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.70	5
30 mm	79.78	5
BP	66.84	5
t_e	64.46	5
t_e (d, e)	64.27	5
$\Delta Hv/T_e$	19.55	5
d 25 to	90.27	5
e 189 °C	0.1374	5
d' to		
e' °C		
d_c g/ml	0.243	5
v_c ml/g	4.11	5
t_c °C	343.	5
P_c mm	16209.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9450	5
t_e	0.9303	5
t_c	0.243	5
ΔHc kcal/m	1488.82	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40°C	0.855	2
60	0.692	2
80	0.583	2
100	0.501	2
B^v 30 to	479.3	4
A^v 70 °C	$\bar{2}.40181$	4
(B^v) 70 to	433.9	4
(A^v) 110°C	$\bar{2}.53743$	4
c_p liq. °K		
c_p vap. 300°K	0.38329	2
400	0.48332	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0246	4
n 600 °K	0.0013	4
o	-0.0_649	4
m' 700 to	0.1096	4
n' 1000 °K	0.0011	4
o'	-0.0_638	4
Surface tension		
dynes/cm. 20°C	22.68	5
γ 30	21.75	5
40	20.84	5
Parachor [P]		
20°C		
30		
40		
Sugd.	413.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	112.9	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 160

NAME	1-Undecene				STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula $C_{11}H_{22}$	Molecular Weight 154.286	$CH_3(CH_2)_8CH=CH_2$

		Ref.
F.P. °C	-49.185	2
F.P. 100%		
B.P. °C		
760 mm	192.671	2
100	124.851	2
30	94.89	4
10	72.02	5
1	34.54	5
Pressure mm 25°C	0.490	5
t_e	1255.	5
Density g/ml 20°C	0.75032	2
d_4^t 25	0.74655	2
30	0.74278	4
a	0.7654	4
b	-0.0_3754	4
Ref. Index n_D 20°C	1.42609	2
25	1.42383	2
30	1.42167	4
"C"	0.7545	4
MR (Obs.)	52.696	2
MR (Calc.)	52.531	5
(nD-d/2)	1.05093	2
Dielectric		
A 25 to 257 °C	6.96662	2
B	1562.47	2
C	189.74	2
A* 94 to 225 °C	1.49542	5
B*	1477.5	5
K		
c		
t_k to		
t_x °C		
A' to °C		
B'		
C'		
A'* to		
B'* °C		
Ac 257 to t_c °C	7.9272	5
Bc	2539.	5
Cc	312.	5
Cryos. A° consts. B°		
t_e °C	214.20	5

		Ref.
dt/dP °C/mm		
25°C	26.16	5
BP	0.05348	2
t_e	0.03615	5
30 mm	0.7506	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.85	5
30 mm	77.50	5
BP	64.33	5
t_e	61.70	5
t_e (d, e)	61.44	5
ΔHv/T_e	19.53	5
d 25 to 215 °C	90.27	5
e	0.1346	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C	364.	5
P_c mm	14948.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9420	5
t_e	0.9253	5
t_c		
ΔHc kcal/m	1635.75	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	1.054	2
60	0.835	2
80	0.691	2
100	0.586	2
B^v 30 to 70 °C	527.6	4
A^v	$\bar{2}.33787$	4
(B^v) 70 to 110 °C	471.6	4
(A^v)	$\bar{2}.50397$	4
c_p liq. °K		
c_p vap. 300°K	0.38403	2
400	0.48443	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0233	4
n	0.0014	4
o	-0.0_650	4
m' 700 to 1000 °K	0.1143	4
n'	0.0011	4
o'	-0.0_638	4
Surface tension dynes/cm. γ 20°C	23.39	5
30	22.46	5
40	21.56	5
Parachor [P] 20°C		
30		
40		
Sugd.	452.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	112.1	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.83\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 161

NAME	1-Dodecene		**STRUCTURAL FORMULA**
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{12}H_{24}$	**Molecular Weight** 168.312
			$CH_3(CH_2)_9CH=CH_2$

		Ref.
F.P. °C	-35.230	2
F.P. 100%		
B.P. °C		
760 mm	213.357	2
100	143.315	2
30	112.35	4
10	88.72	5
1	49.20	5
Pressure		
mm 25°C	0.1446	5
t_e	1309.	5
Density		
g/ml 20°C	0.75836	2
d_4^t 25	0.75474	2
30	0.75112	4
a	0.77284	4
b	-0.0_3724	4
Ref. Index		
n_D 20°C	1.43002	2
25	1.42782	2
30	1.42562	4
"C"	0.7530	4
MR (Obs.)	57.336	2
MR (Calc.)	57.149	5
(nD-d/2)	1.05084	2
Dielectric		
A 112 to	6.97522	2
B 280 °C	1619.86	2
C	182.27	2
A* 112 to	1.52979	5
B* 248 °C	1534.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 280 to	8.0711	5
Bc t_c °C	2792.	5
Cc	327.	5
Cryos. A°		
consts. B°		
t_e °C	237.59	5

		Ref.
dt/dP		
°C/mm		
25°C	71.96	5
BP	0.05522	2
t_e	0.03609	5
30 mm	0.7757	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.74	5
30 mm	75.41	5
BP	62.15	5
t_e	59.30	5
t_e (d, e)	58.97	5
$\Delta Hv/T_e$	19.54	5
d 25 to	90.16	5
e 238 °C	0.1313	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	384.	5
P_c mm	13911.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9400	5
t_e	0.9214	5
t_c		
ΔHc kcal/m	1782.68	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40°C	1.286	2
60	0.995	2
80	0.811	2
100	0.676	2
B^v to	581.2	4
A^v °C	$\bar{2}.25329$	4
(B^v)	521.0	4
(A^v)	$\bar{2}.43370$	4
c_p liq. °K		
c_p vap. 300°K	0.38464	2
400	0.48529	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0231	4
n 600 °K	0.0014	4
o	-0.0_650	4
m' 700 to	0.1145	4
n' 1000 °K	0.0011	4
o'	-0.0_638	4
Surface tension		
dynes/cm. 20°C	23.99	5
γ 30	23.09	5
40	22.21	5
Parachor [P]		
20°C		
30		
40		
Sugd.	491.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	110.7	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.84\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 162

NAME	1-Tridecene		STRUCTURAL FORMULA
			$CH_3(CH_2)_{10}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{13}H_{26}$	Molecular Weight 182.338

		Ref.
F.P. °C	-23.070	2
F.P. 100%		
B.P. °C		
760 mm	232.78	2
100	160.7	2
30	128.84	4
10	104.5	5
1	63.9	5
Pressure mm 25°C	0.05477	5
t_e	1358.	5
Density g/ml 20°C	0.7653	2
d_4^t 25	0.7617	2
30	0.7581	4
a	0.7797	4
b	-0.0_372	4
Ref. Index n_D 20°C	1.4336	2
25	1.43118	2
30	1.4291	4
"C"	0.7518	4
MR (Obs.)	61.969	2
MR (Calc.)	61.767	5
(nD-d/2)	1.0508	2
Dielectric		
A 128 to	6.9692	2
B 300°C	1662.68	2
C	173.90	2
A* 128 to	1.55088	5
B* 270°C	1577.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 300 to	8.2020	5
Bc t_c °C	3037.	5
Cc	341.	5
Cryos. A°		
consts. B°		
t_e °C	259.52	5

		Ref.
dt/dP °C/mm		
25°C	207.11	5
BP	0.05680	2
t_e	0.0361	5
30 mm	0.7980	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.76	5
30 mm	73.58	5
BP	60.05	5
t_e	56.96	5
t_e (d, e)	56.57	5
$\Delta Hv/T_e$	19.50	5
d 25 to	90.36	5
e 265 °C	0.1302	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	401.	5
P_c mm	12776.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9370	5
t_e	0.9165	5
t_c		
ΔHc kcal/m	1929.60	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40°C	1.56	2
60	1.184	2
80	0.945	2
100	0.780	2
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38522	2
400	0.48602	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0233	4
n 600°K	0.0014	4
o	-0.0_650	4
m' 700 to	0.1116	4
n' 1000°K	0.0011	4
o'	-0.0_639	4
Surface tension dynes/cm. 20°C	24.52	5
γ 30	23.61	5
40	22.73	5
Parachor [P] 20°C		
30		
40		
Sugd.	530.2	5
Exp. L.1.%/wt. u.		
Dispersion	110.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.85\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 163

NAME	1-Tetradecene		STRUCTURAL FORMULA $CH_3(CH_2)_{11}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{14}H_{28}$	Molecular Weight 196.364

		Ref.
F.P. °C	-12.85	2
F.P. 100%		
B.P. °C		
760 mm	251.100	2
100	177.1	2
30	144.40	4
10	119.0	5
1	74.5	5
Pressure mm 25°C	0.01815	5
t_e	1406.	5
Density g/ml 20°C	0.7713	2
d_4^t 25	0.7677	2
30	0.7641	4
a	0.7857	4
b	-0.0372	4
Ref. Index n_D 20°C	1.43631	2
25	1.43415	2
30	1.4320	4
"C"	0.7507	4
MR (Obs.)	66.610	2
MR (Calc.)	66.385	5
(nD-d/2)	1.0508	2
Dielectric		
A 144 to	6.9615	2
B 319 °C	1699.76	2
C	165.53	2
A* 144 to	1.56703	5
B* 290 °C	1615.5	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.63041	5
B' 144 °C	2139.5	5
C'	203.3	5
A'* 20 to	2.21444	5
B'* 144 °C	2037.5	5
Ac 319 to	8.3416	5
Bc t_c °C	3298.	5
Cc	356.	5
Cryos. A°		
consts. B°		
t_e °C	280.17	5

		Ref.
dt/dP °C/mm		
25°C	497.07	5
BP	0.05820	2
t_e	0.0361	5
30 mm	0.8181	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.67	5
30 mm	71.91	5
BP	58.18	5
t_e	54.89	5
t_e (d, e)	54.42	5
$\Delta Hv/T_e$	19.48	5
d 25 to	90.50	5
e 290 °C	0.1288	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	416.	5
P_c mm	11740.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9350	5
t_e	0.9129	5
t_c		
ΔHc kcal/m	2067.52	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40°C	1.85	2
60	1.40	2
80	1.097	2
100	0.891	2
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38566	2
400	0.48665	2
c_v vap.		

			Ref.
f g h	to °K		
f' g' h'	to °K		
m	300 to	0.0231	4
n	600 °K	0.0014	4
o		$-0.0_{6}50$	4
m'	700 to	0.1155	4
n'	1000 °K	0.0011	4
o'		$-0.0_{6}38$	4
Surface tension dynes/cm. γ	20°C	24.99	5
	30	24.07	5
	40	23.17	5
Parachor [P]	20°C		
	30		
	40		
	Sugd.	569.2	5
Exp. L.1.%/wt. u.			
Dispersion		109.	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.86\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 164

NAME	1-Pentadecene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{15}H_{30}$	Molecular Weight 210.390
			$CH_3(CH_2)_{12}CH{=}CH_2$

		Ref.
F.P. °C	-3.730	2
F.P. 100%		
B.P. °C		
760 mm	268.17	2
100	192.5	2
30	159.1	4
10	133.7	5
1	91.2	5
Pressure mm 25°C	0.00609	5
t_e	1448.0	5
Density g/ml 20°C	0.77641	2
d_4^t 25	0.77290	2
30	0.7694	4
a	0.7904	4
b	-0.0_370	4
Ref. Index n_D 20°C	1.4389	2
25	1.4368	2
30	1.4347	4
"C"	0.7497	4
MR (Obs.)	71.251	2
MR (Calc.)	71.003	5
(nD-d/2)	1.0506	2
Dielectric		
A 159 to 337 °C	6.9503	2
B	1730.301	2
C	157.	2
A* 159 to 305 °C	1.58000	5
B*	1647.3	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 337 to t_c °C	8.5072	5
Bc	3608.	5
Cc	376.	5
Cryos. consts. A°		
B°		
t_e °C	299.58	5

		Ref.
dt/dP °C/mm		
25°C	1629.5	5
BP	0.0596	4
t_e	0.0361	5
30 mm	0.8362	5
ΔHm cal/g		
ΔHv cal/g 25°C	86.60	5
30 mm	70.37	5
BP	56.41	5
t_e	52.92	5
t_e (d, e)	52.39	5
ΔHv/T_e	19.44	5
d 159 to 290 °C	90.75	5
e	0.1280	5
d' 20 to 159 °C	89.62	5
e'	0.1210	5
d_c g/ml		
v_c ml/g		
t_c °C	431.	5
P_c mm	10918.	5
PV/RT 25°C	1.0000	5
30 mm	1.0000	5
BP	0.9325	5
t_e	0.9086	5
t_c		
ΔHc kcal/m	2223.44	2
ΔHf		
ΔFf		
Viscosity centistokes η 40 °C	2.21	2
60	1.64	2
80	1.265	2
100	1.016	2
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300 °K	0.38609	2
400	0.48719	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0232	4
n	0.0014	4
o	-0.0_650	4
m' 700 to 1000 °K	0.1155	4
n'	0.0011	4
o'	-0.0_638	4
Surface tension dynes/cm. γ 20°C	25.39	5
30	24.49	5
40	23.61	5
Parachor [P] 20°C		
30		
40		
Sugd.	608.2	5
Exp. L.l.%/wt. u.		
Dispersion	108.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.87\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 165

NAME	1-Hexadecene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{16}H_{32}$	Molecular Weight 224.416
			$CH_3(CH_2)_{13}CH=CH_2$

		Ref.
F.P. °C	4.120	2
F.P. 100%		
B.P. °C		
760 mm	284.4	2
100	207.2	2
30	173.13	4
10	147.2	5
1	103.9	5
Pressure		
mm 25°C	0.0_352	5
t_e	1487.	5
Density		
g/ml 20°C	0.78112	2
d_4^t 25	0.77759	2
30	0.77406	4
a	0.79524	4
b	-0.0_3706	4
Ref. Index		
n_D 20°C	1.44120	2
25	1.43907	2
30	1.43694	4
"C"	0.7489	4
MR (Obs.)	75.898	2
MR (Calc.)	75.621	5
(nD-d/2)	1.05064	2
Dielectric		
A 173 to	6.936	2
B 352°C	1755.2	2
C	148.	2
A* 173 to	1.59011	5
B* 325 °C	1674.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 352 to	8.6611	5
Bc t_c °C	3905.	5
Cc	394.	5
Cryos. A°		
consts. B°		
t_e °C	317.97	5

		Ref.
dt/dP		
°C/mm		
25°C	4630.	5
BP	0.0610	4
t_e	0.0362	5
30 mm	0.8527	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.45	5
30 mm	68.96	5
BP	54.75	5
t_e	51.07	5
t_e (d, e)	50.46	5
ΔHv/T_e	19.39	5
d 173 to	91.08	5
e 310 °C	0.1277	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	444.	5
P_c mm	10008.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9300	5
t_e	0.9043	5
t_c		
ΔHc kcal/m	2370.37	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	2.62	2
60	1.89	2
80	1.46	2
100	1.149	2
B^v 35 to	740.1	5
A^v 70 °C	$\bar{2}.05527$	5
(B^v) 70 to	685.6	5
(A^v) 105 °C	$\bar{2}.22324$	5
c_p liq. °C		
c_p vap. 300°K	0.38643	2
400	0.48767	2
c_v vap.		

		Ref.
f to		
g °C		
h		
f' to		
g' °C		
h'		
m 300 to	0.0231	4
n 600 °K	0.0014	4
o	-0.0_650	4
m' 700 to	0.1158	4
n' 1000 °K	0.0011	4
o'	-0.0_638	4
Surface tension		
dynes/cm. 20°C	25.75	5
γ 30	24.83	5
40	23.94	5
Parachor [P]		
20°C		
30		
40		
Sugd.	647.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	107.1	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.87T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 166

NAME	1-Heptadecene				STRUCTURAL FORMULA
Mole % Pur.		Ref.	Molecular Formula $C_{17}H_{34}$	Molecular Weight 238.442	$CH_3(CH_2)_{14}CH{=}CH_2$

		Ref.
F.P. °C	11.2	2
F.P. 100%		
B.P. °C		
760 mm	299.7	2
100	221.0	2
30	186.34	4
10	160.	2
1	116.	5
Pressure mm 25°C	0.0_3708	5
t_e	1522.	5
Density g/ml 20°C	0.7852	2
d^t_4 25	0.7817	2
30	0.7782	4
a	0.7992	4
b	-0.0_370	4
Ref. Index n_D 20°C	1.4432	2
25	1.4411	2
30	1.4390	4
"C"	0.7482	4
MR (Obs.)	80.54	2
MR (Calc.)	80.293	5
(nD-d/2)	1.0506	2
Dielectric		
A 186 to	6.920	2
B 366 °C	1774.6	2
C	139.7	2
A* 186 to	1.59829	5
B* 340 °C	1695.7	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 366 to	8.8342	5
Bc t_c °C	4239.	5
Cc	416.	5
Cryos. A°		
consts. B°		
t_e °C	335.11	5

		Ref.
dt/dP °C/mm		
25°C	12449.	5
BP	0.0622	4
t_e	0.0362	5
30 mm	0.8672	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.40	5
30 mm	67.65	5
BP	53.06	5
t_e	49.31	5
t_e (d, e)	48.51	5
$\Delta Hv/T_e$	19.33	5
d 186 to	91.63	5
e 325 °C	0.1287	5
d' to		5
e' °C		5
d_c g/ml		
v_c ml/g		
t_c °C	455.	5
P_c mm	9252.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9250	5
t_e	0.8995	5
t_c		
ΔHc kcal/m	2517.30	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	3.08	2
60	2.18	2
80	1.66	2
100	1.30	2
B^v 35 to	783.1	5
A^v 70 °C	$\bar{3}.98823$	5
(B^v) 70 to	699.7	5
(A^v) 105 °C	$\bar{2}.23908$	5
c_p liq. °K		
c_p vap. 300°K	0.38672	2
400	0.48809	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0229	4
n 600 °K	0.0014	4
o	-0.0_650	4
m' 700 to	0.1160	4
n' 1000 °K	0.0011	4
o'	-0.0_638	4
Surface tension dynes/cm. 20°C	26.07	5
γ 30	25.16	5
40	24.26	5
Parachor [P] 20°C		
30		
40		
Sugd.	686.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	107.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.88\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 167

NAME	1-Octadecene		STRUCTURAL FORMULA
	-		$CH_3(CH_2)_{15}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{18}H_{36}$	Molecular Weight 252.468

		Ref.
F.P. °C	17.6	2
F.P. 100%		
B.P. °C		
760 mm	314.2	2
100	234.2	2
30	198.91	4
10	172.	2
1	128.	5
Pressure mm 93.77 °C	0.1000	5
t_e	1575.	5
Density		
g/ml 20°C	0.7888	2
d^t_4 25	0.7853	2
30	0.7818	4
a	0.8028	4
b	-0.0_370	4
Ref. Index		
n_D 20°C	1.4449	2
25	1.4428	2
30	1.4408	4
"C"	0.7476	4
MR (Obs.)	85.185	2
MR (Calc.)	84.851	5
(nD-d/2)	1.0506	2
Dielectric		
A 199 to	6.901	2
B 380 °C	1789.4	2
C	131.	2
A* 199 to	1.58563	5
B* 361 °C	1707.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 380 to	9.04000	5
Bc t_c °C	4643.	5
Cc	443.1	5
Cryos. consts. A°		
B°		
t_e °C	352.14	5

		Ref.
dt/dP °C/mm		
BP	0.0633	4
t_e	0.03596	5
30 mm	0.8805	5
ΔHm cal/g		
ΔHv cal/g		
25°C		
30 mm	66.44	5
BP	52.04	5
t_e	48.18	5
t_e (d, e)	47.31	5
$\Delta Hv/T_e$	19.45	5
d 199 to	91.20	5
e 360 °C	0.1246	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	466.	5
P_c mm	8609.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9303	5
t_e	0.9053	5
t_c		
ΔHc kcal/m	2664.22	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	3.59	2
60	2.51	2
80	1.87	2
100	1.46	2
B^v 35 to	810.4	5
A^v 70 °C	$\bar{3}.96761$	5
(B^v) 70 to	560.8	5
(A^v) 105 °C	$\bar{2}.69007$	5
c_p liq. °K		
c_p vap. 300°K	0.38702	2
400	0.48846	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0230	4
n 600 °K	0.0014	4
o	-0.0_650	4
m' 700 to	0.1164	4
n' 1000 °K	0.0011	4
o'	-0.0_638	4
Surface tension dynes/cm. 20°C	26.36	5
γ 30	25.43	5
40	24.53	5
Parachor [P] 20°C		
30		
40		
Sugd.	725.2	5
Exp. L.1.%/wt. u.		
Dispersion	107.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.88\ T_c$

+grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 168

NAME	1-Nonadecene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{19}H_{38}$	Molecular Weight 266.494
			$CH_3(CH_2)_{16}CH{=}CH_2$

		Ref.
F.P. °C	23.4	2
F.P. 100%		
B.P. °C		
760 mm	328.0	2
100	247.	2
30	211.15	4
10	184.	2
1	138.8	5
Pressure mm 106.43°C	0.1000	5
t_e	1606.06	5
Density g/ml 20°C	0.7920$^{\neq}$	2
d_4^t 25	0.7886	2
30	0.7852	4
a	0.8056	4
b	$-0.0_{3}68$	4
Ref. Index n_D 20°C	1.4465$^{\neq}$	2
25	1.4445	2
30	1.4424	4
"C"	0.7471	4
MR (Obs.)	89.83$^{\neq}$	2
MR (Calc.)	89.475	5
(nD-d/2)	1.0506$^{\neq}$	2
Dielectric		
A 211 to	6.881	2
B 394 °C	1800.3	2
C	122.	2
A* 211 to	1.58837	5
B* 377 °C	1720.93	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 394 to	9.29778	5
Bc t_c °C	5158.13	5
Cc	479.41	5
Cryos. A°		
consts. B°		
t_e °C	367.84	5

		Ref.
dt/dP °C/mm		
106.43 °C	125.89	5
BP	0.06429	2
t_e	0.03604	5
30 mm	0.8925	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.30	5
30 mm	65.33	5
BP	50.79	5
t_e	46.63	5
t_e (d, e)	45.83	5
ΔHv/T_e	19.38	5
d 211 to	91.62	5
e 367 °C	0.1245	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	477.	5
P_c mm	8079.4	5
PV/RT		
106.43 °C	1.0000	5
30 mm	1.0000	5
BP	0.9300	5
t_e	0.9005	5
t_c		
ΔHc kcal/m	2811.14	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	4.17	2
60	2.87	2
80	2.12	2
100	1.63	2
B^v 35 to	846.6	4
A^v 70 °C	$\bar{3}.91708$	4
(B^v) 70 to	752.3	4
(A^v) 105 °C	$\bar{2}.19638$	4
c_p liq. °K		
c_p vap. 300°K	0.38725	2
400	0.48879	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0230	4
n 600 °K	0.0014	4
o	$-0.0_{6}50$	4
m' 700 to	0.1187	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}38$	4
Surface tension dynes/cm. γ 20°C	26.60	5
30	25.70	5
40	24.83	5
Parachor [P] 20°C		
30		
40		
Sugd.	764.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	106.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in $^{+}$		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.89\ T_c$ $\quad ^{\neq}$ for undercooled liquid $\quad ^{+}$ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 169

NAME	1-Eicosene		**STRUCTURAL FORMULA**
Mole % Pur.	Ref.	Molecular Formula $C_{20}H_{40}$	Molecular Weight 280.520
			$CH_3(CH_2)_{17}CH=CH_2$

		Ref.
F.P. °C	28.6	2
F.P. 100%		
B.P. °C		
760 mm	341.2	2
100	259.	2
30	222.92	4
10	195.	2
1	149.	5
Pressure		
mm 117.0°C	0.1000	5
t_e	1622.	5
Density		
g/ml 20°C	$0.7950^{\neq}$	2
d_4^t 25	$0.7916^{\neq}$	2
30	$0.7882^{\neq}$	4
a	0.8086	4
b	$-0.0_{3}68$	4
Ref. Index		
n_D 20°C	$1.4480^{\neq}$	2
25	$1.4459^{\neq}$	2
30	$1.4439^{\neq}$	4
"C"	0.7466	4
MR (Obs.)	$94.47^{\neq}$	2
MR (Calc.)	94.093	5
(nD-d/2)	$1.0506^{\neq}$	2
Dielectric		
A 223 to	6.859	2
B 405 °C	1807.9	2
C	113.	2
A* 223 to	1.59840	5
B* 393 °C	1734.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 405 to	9.50720	5
Bc t_c °C	5591.	5
Cc	505.	5
Cryos. A°		
consts. B°		
t_e °C	382.48	5

		Ref.
dt/dP		
°C/mm		
117.0°C	127.12	5
BP	0.06527	4
t_e	0.03634	5
30 mm	0.9036	5
ΔHm cal/g		
ΔHv cal/g		
25°C	86.27	5
30 mm	64.32	5
BP	49.34	5
t_e	44.87	5
t_e (d, e)	44.12	5
$\Delta Hv/T_e$	19.19	5
d 223 to	92.55	5
e 383 °C	0.1266	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	486.	5
P_c mm	7425.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9250	5
t_e	0.8894	5
t_c		
ΔHc kcal/m	2958.06	2
ΔHf		
ΔFf		
Viscosity centistokes		
η 40 °C	4.81	2
60	3.27	2
80	2.38	2
100	1.81	2
B^v 35 to	874.5	5
A^v 70 °C	$\bar{3}.89001$	5
(B^v) 70 to	783.6	5
(A^v) 105 °C	$\bar{2}.15801$	5
c_p liq. °K		
c_p vap. 300°K	0.38749	2
400	0.48909	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0230	4
n 600 °K	0.0014	4
o	$-0.0_{6}50$	4
m' 700 to	0.1166	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}38$	4
Surface tension		
dynes/cm. 20°C	26.85	5
γ 30	25.94	5
40	25.06	5
Parachor [P]		
20°C		
30		
40		
Sugd.	803.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	$106.^{\neq}$	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.89T_c$ $^{\neq}$ for undercooled liquid $^{+}$ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE:

PURIFICATION:

LITERATURE REFERENCES:

No. 170

NAME	1-Heneicosene		**STRUCTURAL FORMULA** $CH_3(CH_2)_{18}CH=CH_2$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{21}H_{42}$	**Molecular Weight** 294.546

		Ref.
F.P. °C	33.3	2
F.P. 100%		
B.P. °C		
760 mm	355.	2
100	271.27	5
30	233.06	5
10	203.53	5
1	153.75	5
0.1	115.62	5
Press. mm t_e	1602.	5
Density g/ml 20°C	0.7977≠	2
d_4^t 25	0.7943≠	2
30	0.7909≠	4
a	0.8113	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4494≠	2
25	1.4473≠	2
30	1.4452≠	4
"C"	0.7461	4
MR (Obs.)	99.09	4
MR (Calc.)	98.711	5
(nD-d/2)	1.0505≠	2
Dielectric	2.10	5
A 233 to 443 °C	7.54372	4
B	2457.3	4
C	172.	5
A* 233 to 403 °C	2.31717	5
B*	2377.8	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* 115 to 233 °C	2.23287	5
B'*	2343.6	5
Ac to t_c °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	394.33	5

		Ref.
dt/dP °C/mm		
0.1 mm	146.20	5
BP	0.0646	4
t_e	0.0354	5
30 mm	0.9666	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	69.75	5
30 mm	59.60	5
BP	47.98	5
t_e	44.61	5
t_e (d, e)	44.22	5
ΔHv/T_e	19.39	5
d 233 to 393 °C	81.80	5
e	0.0953	5
d' 115 to 233 °C	79.74	5
e'	0.0864	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8948	5
t_e	0.8627	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm γ 20°C	27.06	5
30	26.15	5
40	25.27	5
Parachor [P] 20°C		
30		
40		
Sugd.	842.2	5
Exp. L. 1.%/wt. u.		
Dispersion	105.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 171

NAME	1-Docosene		**STRUCTURAL FORMULA**
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{22}H_{44}$	**Molecular Weight** 308.572
			$CH_3(CH_2)_{19}CH=CH_2$

		Ref.
F.P. °C	37.8	2
F.P. 100%		
B.P. °C 760 mm	367.	2
100	281.87	5
30	243.02	5
10	212.98	5
1	162.33	5
0.1	123.52	5
Press. mm t_e	1632.3	5
Density g/ml 20°C	0.8002≠	2
d_4^t 25	0.7967≠	2
30	0.7934≠	4
a	0.8138	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4505≠	2
25	1.4485≠	2
30	1.4464≠	4
"C"	0.7457	4
MR (Obs.)	103.73	2
MR (Calc.)	103.329	5
(nD-d/2)	1.0505≠	2
Dielectric	2.10	5
A 243 to	7.55128	4
B 458 °C	2505.7	4
C	169.5	5
A* 243 to	2.33832	5
B* 418 °C	2425.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 122 to	2.25251	5
B'* 243 °C	2390.03	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	408.05	5

		Ref.
dt/dP °C/mm 0.1 mm	148.82	5
BP	0.0656	4
t_e	0.0354	5
30 mm	0.9831	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm	68.09	5
30 mm	58.15	5
BP	47.39	5
t_e	43.34	5
t_e (d, e)	43.0	5
ΔHv/T_e	19.63	5
d 243 to	80.49	5
e 408 °C	0.0919	5
d' 122 to	78.37	5
e' 243 °C	0.0832	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8943	5
t_e	0.8612	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	to		
n	°K		
o			
m'	to		
n'	°K		
o'			
Surface tension dynes/cm. γ	20°C	27.27	5
	30	26.35	5
	40	25.46	5
Parachor [P]	20°C		
	30		
	40		
	Sugd.	881.2	5
Exp. L.1.%/wt. u.			
Dispersion		105.≠	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 172

NAME	1-Tricosene	STRUCTURAL FORMULA	
Mole % Pur.	Ref.	Molecular Formula $C_{23}H_{46}$	Molecular Weight 322.598
		$CH_3(CH_2)_{20}CH=CH_2$	

		Ref.
F.P. °C	41.6	2
F.P. 100%		
B.P. °C		
760 mm	379.	2
100	292.47	5
30	252.95	5
10	222.39	5
1	170.83	5
0.1	131.32	5
Press. mm t_e	1662.0	5
Density g/ml 20°C	0.8023≠	2
d_4^t 25	0.7990≠	2
30	0.7958≠	4
a	0.8156	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4516≠	2
25	1.4496≠	2
30	1.4475≠	4
"C"	0.7453	4
MR (Obs.)	108.39	2
MR (Calc.)	107.947	5
(nD-d/2)	1.0505≠	2
Dielectric	2.11	5
A 254 to	7.56305	4
B 469 °C	2558.84	4
C	167.5	5
A* 254 to	2.36314	5
B* 429 °C	2477.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 132 to	2.27521	5
B'* 254 °C	2440.9	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	421.77	5

		Ref.
dt/dP °C/mm		
0.1 mm	151.55	5
BP	0.0667	4
t_e	0.0355	5
30 mm	1.0001	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	66.50	5
30 mm	56.80	5
BP	45.63	5
t_e	42.20	5
t_e (d, e)	41.85	5
ΔHv/T_e	19.59	5
d 254 to	79.22	5
e 419 °C	0.0886	5
d' 132 to	76.96	5
e' 254 °C	0.0797	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8936	5
t_e	0.8596	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	27.44	5
30	26.55	5
40	25.68	5
Parachor [P] 20°C		
30		
40		
Sugd.	920.2	5
Exp. L.1.%/wt. u.		
Dispersion	105.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 173

NAME	1-Tetracosene		**STRUCTURAL FORMULA**
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{24}H_{48}$	**Molecular Weight** 336.624
			$CH_3(CH_2)_{21}CH=CH_2$

		Ref.
F.P. °C	45.3	2
F.P. 100%		
B.P. °C 760 mm	390.	2
100	302.20	5
30	262.09	5
10	231.06	5
1	178.73	5
0.1	138.61	5
Press. mm t_e	1690.	5
Density g/ml 20°C	0.8045≠	2
d^t_4 25	0.8011≠	2
30	0.7977≠	4
a	0.8181	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4527≠	2
25	1.4506≠	2
30	1.4485≠	4
"C"	0.7449	4
MR (Obs.)	113.03	2
MR (Calc.)	112.565	5
(nD-d/2)	1.0505≠	2
Dielectric	2.11	5
A 263 to	7.56767	4
B 481 °C	2601.2	4
C	165.	5
A* 263 to	2.38017	5
B* 441 °C	2519.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 140 to	2.29129	5
B'* 263 °C	2481.6	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	434.4	5

		Ref.
dt/dP °C/mm 0.1 mm	153.90	5
BP	0.0677	4
t_e	0.0355	5
30 mm	1.0151	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm	65.04	5
30 mm	55.51	5
BP	44.52	5
t_e	41.05	5
t_e (d, e)	40.70	5
$\Delta Hv/T_e$	19.69	5
d 263 to	78.01	5
e 431 °C	0.0859	5
d' 140 to	75.73	5
e' 263 °C	0.0772	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8933	5
t_e	0.8585	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	27.62	5
30	26.69	5
40	25.80	5
Parachor [P] 20°C		
30		
40		
Sugd.	959.2	5
Exp. L.1.%/wt. u.		
Dispersion	104.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 174

NAME	1-Pentacosene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{25}H_{50}$	Molecular Weight 350.650
			$CH_3(CH_2)_{22}CH=CH_2$

		Ref.
F.P. °C	48.7	2
F.P. 100%		
B.P. °C		
760 mm	401.	2
100	311.91	5
30	271.18	5
10	239.66	5
1	186.48	5
0.1	145.70	5
Press. mm		
t_e	1717.3	5
Density g/ml 20°C	0.8063≠	2
d_4^t 25	0.8030≠	2
30	0.7998≠	4
a	0.8196	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4536≠	2
25	1.4515≠	2
30	1.4495≠	4
"C"	0.7447	4
MR (Obs.)	117.68	2
MR (Calc.)	117.183	5
(nD-d/2)	1.0505≠	2
Dielectric	2.11	5
A 272 to	7.58080	4
B 493 °C	2653.1	4
C	163.5	5
A* 272 to	2.40531	5
B* 453 °C	2570.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 147 to	2.31448	5
B'* 272 °C	2531.2	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	446.99	5

		Ref.
dt/dP °C/mm		
0.1 mm	156.49	5
BP	0.0686	4
t_e	0.0355	5
30 mm	1.0309	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	63.53	5
30 mm	54.27	5
BP	43.51	5
t_e	40.02	5
t_e (d, e)	39.69	5
$\Delta Hv/T_e$	19.48	5
d 272 to	76.74	5
e 443 °C	0.0829	5
d' 147 to	74.29	5
e' 272 °C	0.0738	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8927	5
t_e	0.8571	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. 20°C	27.77	5
γ 30	26.87	5
40	26.00	5
Parachor [P] 20°C		
30		
40		
Sugd.	998.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	104.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in ‡		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

‡ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 175

NAME	1-Hexacosene			STRUCTURAL FORMULA $CH_3(CH_2)_{23}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{26}H_{52}$	Molecular Weight 364.676	

		Ref.
F.P. °C	51.8	2
F.P. 100%		
B.P. °C		
760 mm	411.	2
100	320.74	5
30	279.47	5
10	247.53	5
1	193.62	5
0.1	152.26	5
Press. mm t_e	1742.7	5
Density g/ml 20°C	$0.8082^{\neq}$	2
d_4^t 25	$0.8048^{\neq}$	2
30	$0.8014^{\neq}$	4
a	0.8218	4
b	-0.0_368	4
Ref. Index n_D 20°C	$1.4545^{\neq}$	2
25	$1.4524^{\neq}$	2
30	$1.4503^{\neq}$	4
"C"	0.7443	4
MR (Obs.)	122.31	2
MR (Calc.)	122.101	5
(nD-d/2)	$1.0504^{\neq}$	2
Dielectric		
A 280 to	7.58699	4
B 504 °C	2694.3	4
C	161.5	5
A* 280 to	2.42316	5
B* 464 °C	2611.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 154 to	2.33132	5
B'* 280 °C	2570.7	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	458.48	5

		Ref.
dt/dP °C/mm		
0.1 mm	158.69	5
BP	0.0695	4
t_e	0.0356	5
30 mm	1.0448	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	62.15	5
30 mm	53.07	5
BP	42.50	5
t_e	38.98	5
t_e (d, e)	38.66	5
ΔHv/T_e	19.43	5
d 280 to	75.52	5
e 454 °C	0.0804	5
d' 154 to	73.02	5
e' 280 °C	0.0714	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8924	5
t_e	0.8561	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔEf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	27.92	5
γ 30	26.99	5
40	26.09	5
Parachor [P] 20°C		
30		
40		
Sugd.	1037.2	5
Exp. L.1.%/wt. u.		
Dispersion	$104.^{\neq}$	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 176

NAME	1-Heptacosene		**STRUCTURAL FORMULA**
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{27}H_{54}$	**Molecular Weight** 378.702
			$CH_3(CH_2)_{24}CH=CH_2$

		Ref.
F.P. °C	54.7	2
F.P. 100%		
B.P. °C 760 mm	421.	2
100	329.58	5
30	287.77	5
10	255.40	5
1	200.76	5
0.1	158.83	5
Press. mm t_e	1767.5	5
Density g/ml 20°C	0.8097≠	2
d_4^t 25	0.8064≠	2
30	0.8032≠	4
a	0.8230	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4552≠	2
25	1.4532≠	2
30	1.4513≠	4
"C"	0.7441	4
MR (Obs.)	126.95	2
MR (Calc.)	126.219	5
(nD-d/2)	1.0504≠	2
Dielectric	2.12	5
A 289 to	7.59302	4
B 515 °C	2735.4	4
C	159.5	5
A* 289 to	2.44072	5
B* 475 °C	2651.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 161 to	2.34745	5
B'* 289 °C	2610.2	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A° consts. B°		
t_e °C	469.86	5

		Ref.
dt/dP °C/mm 0.1 mm	160.89	5
BP	0.0704	4
t_e	0.0356	5
30 mm	1.0587	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm	60.86	5
30 mm	51.96	5
BP	41.57	5
t_e	38.04	5
t_e (d, e)	37.74	5
ΔHv/T_e	19.11	5
d 289 to	74.39	5
e 465 °C	0.0780	5
d' 161 to	71.84	5
e' 289 °C	0.0691	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8919	5
t_e	0.8549	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.05	5
30	27.14	5
40	26.26	5
Parachor [P] 20°C		
30		
40		
Sugd.	1076.2	5
Exp. L.1.%/wt. u.		
Dispersion	104.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 177

NAME	1-Octacosene			**STRUCTURAL FORMULA** $CH_3(CH_2)_{25}CH=CH_2$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{28}H_{56}$	**Molecular Weight** 392.728	

		Ref.
F.P. °C	57.5	2
F.P. 100%		
B.P. °C		
760 mm	430.	2
100	337.52	5
30	295.19	5
10	262.42	5
1	207.07	5
0.1	164.59	5
Press. mm t_e	1789.2	5
Density g/ml 20°C	0.8114≠	2
d_4^t 25	0.8080≠	2
30	0.8046≠	4
a	0.8250	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4560≠	2
25	1.4540≠	2
30	1.4519≠	4
"C"	0.7438	4
MR (Obs.)	131.57	2
MR (Calc.)	131.337	5
(nD-d/2)	1.0504≠	2
Dielectric	2.12	5
A 297 to	7.60499	4
B 525 °C	2780.18	4
C	158.5	5
A* 297 to	2.46441	5
B* 485 °C	2696.18	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 168 to	2.36904	5
B'* 297 °C	2652.91	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	480.28	5

		Ref.
dt/dP °C/mm		
0.1 mm	163.06	5
BP	0.0712	2
t_e	0.0356	5
30 mm	1.0718	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	59.46	5
30 mm	50.81	5
BP	40.61	5
t_e	37.06	5
t_e (d, e)	36.82	5
ΔHv/T_e	19.32	5
d 297 to	73.13	5
e 475 °C	0.0756	5
d' 168 to	70.37	5
e' 297 °C	0.0663	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8912	5
t_e	0.8535	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	to		
n	°K		
o			
m'	to		
n'	°K		
o'			
Surface tension dynes/cm. γ 20°C		28.18	5
30		27.25	5
40		26.34	5
Parachor [P] 20°C			
30			
40			
Sugd.		1115.2	5
Exp. L.l.%/wt.			
u.			
Dispersion		103.≠	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

≠ for undercooled liquid
+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 178

NAME	1-Nonacosene		**STRUCTURAL FORMULA** $CH_3(CH_2)_{26}CH=CH_2$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{29}H_{58}$	**Molecular Weight** 406.754

		Ref.
F.P. °C	60.0	2
F.P. 100%		
B.P. °C		
760 mm	440.	2
100	346.37	5
30	303.51	5
10	270.33	5
1	214.28	5
0.1	171.26	5
Press. mm t_e	1814.7	5
Density g/ml d_4^t 20°C	0.8127≠	2
25	0.8094≠	2
30	0.8062≠	4
a	0.8260	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4567≠	2
25	1.4547≠	2
30	1.4526≠	4
"C"	0.7436	4
MR (Obs.)	136.23	2
MR (Calc.)	135.955	5
(nD-d/2)	1.0504≠	2
Dielectric	2.12	5
A 305 to 535 °C	7.60654	4
B	2816.5	4
C	156.	5
A* 305 to 495 °C	2.47604	5
B*	2732.0	5
K		
c		
t_k to t_x °C		
A' to °C		
B'		
C'		
A'* 174 to B'* 305 °C	2.38008	5
B'*	2687.9	5
Ac to °C		
Bc t_c		
Cc		
Cryos. consts. A°		
B°		
t_e °C	491.82	5

		Ref.
dt/dP °C/mm		
0.1 mm	165.14	5
BP	0.0721	4
t_e	0.0357	5
30 mm	1.0853	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	58.43	5
30 mm	49.87	5
BP	39.82	5
t_e	36.26	5
t_e (d, e)	36.0	5
$\Delta Hv/T_e$	19.28	5
d 305 to 485 °C	72.22	5
e	0.0736	5
d' 174 to 305 °C	69.51	5
e'	0.0647	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8910	5
t_e	0.8526	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	28.30	5
30	27.39	5
40	26.50	5
Parachor [P] 20°C		
30		
40		
Sugd.	1154.2	5
Exp. L.1.%/wt. u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 179

NAME	1-Triacontene		**STRUCTURAL FORMULA** $CH_3(CH_2)_{27}CH{=}CH_2$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{30}H_{60}$	**Molecular Weight** 420.780

		Ref.
F.P. °C	62.4	2
F.P. 100%		
B.P. °C		
760 mm	448.	2
100	353.43	5
30	310.14	5
10	276.61	5
1	219.97	5
0.1	176.49	5
Press. mm t_e	1834.4	5
Density g/ml 20°C	0.8141≠	2
d_4^t 25	0.8107≠	2
30	0.8075≠	4
a	0.8273	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4573≠	2
25	1.4553≠	2
30	1.4534≠	
"C"	0.7433	4
MR (Obs.)	140.85	2
MR (Calc.)	140.373	5
(nD-d/2)	1.0503≠	2
Dielectric	2.12	5
A 313 to 545 °C	7.61184	4
B	2850.4	4
C	154.5	5
A* 313 to 505 °C	2.49231	5
B*	2765.5	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* 180 to 313 °C	2.39519	5
B'*	2720.4	5
Ac t_c to °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	501.03	5

		Ref.
dt/dP °C/mm		
0.1 mm	166.92	5
BP	0.0728	4
t_e	0.0357	5
30 mm	1.0964	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	57.20	5
30 mm	48.82	5
BP	38.95	5
t_e	35.37	5
t_e (d, e)	35.17	5
ΔHv/T_e	19.22	5
d 313 to 495 °C	71.04	5
e	0.0716	5
d' 180 to 313 °C	68.27	5
e'	0.0627	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8906	5
t_e	0.8517	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	28.40	5
30	27.49	5
40	26.60	5
Parachor [P] 20°C		
30		
40		
Sugd.	1193.2	5
Exp. L.1.%/wt. u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 180

NAME	1-Hentriacontene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{31}H_{62}$	Molecular Weight 434.806	$CH_3(CH_2)_{28}CH=CH_2$

		Ref.
F.P. °C	64.6	2
F.P. 100%		
B.P. °C		
760 mm	457.	2
100	361.38	5
30	317.59	5
10	283.67	5
1	226.36	5
0.1	182.35	5
Press. mm t_e	1857.6	5
Density g/ml 20°C	0.8153≠	2
d_4^t 25	0.8120≠	2
30	0.8088≠	4
a	0.8286	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4580≠	2
25	1.4560≠	2
30	1.4540≠	4
"C"	0.7431	4
MR (Obs.)	145.52	2
MR (Calc.)	144.991	5
(nD-d/2)	1.0503≠	2
Dielectric	2.12	5
A 320 to	7.61918	4
B 554 °C	2890.4	4
C	153.	5
A* 320 to	2.50893	5
B* 514 °C	2804.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 187 to	2.41119	5
B'* 320 °C	2758.7	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	511.43	5

		Ref.
dt/dP °C/mm		
0.1 mm	168.97	5
BP	0.0736	4
t_e	0.0357	5
30 mm	1.1092	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	56.12	5
30 mm	47.91	5
BP	38.20	5
t_e	34.61	5
t_e (d, e)	34.43	5
ΔHv/T_e	19.17	5
d 320 to	70.02	5
e 504 °C	0.0696	5
d' 185 to	67.19	5
e' 320 °C	0.0607	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8905	5
t_e	0.8510	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.51	5
30	27.60	5
40	26.71	5
Parachor [P] 20°C		
30		
40		
Sugd.	1232.2	5
Exp. L.1.%/wt. u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No.181

NAME	1-Dotriacontene				STRUCTURAL FORMULA $CH_3(CH_2)_{29}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{32}H_{64}$	Molecular Weight 448.832		

		Ref.
F.P. °C	66.7	2
F.P. 100%		
B.P. °C		
760 mm	465.	2
100	368.45	5
30	324.22	5
10	289.96	5
1	232.06	5
0.1	187.58	5
Press. mm t_e	1879.8	5
Density g/ml 20°C	0.8165≠	2
d_4^t 25	0.8132≠	2
30	0.8100≠	4
a	0.8298	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4585≠	2
25	1.4565≠	2
30	1.4546≠	4
"C"	0.7429	4
MR (Obs.)	150.13	2
MR (Calc.)	149.609	5
(nD-d/2)	1.0503≠	2
Dielectric	2.13	5
A 327 to	7.62424	4
B 563 °C	2924.3	4
C	151.5	5
A* 327 to	2.52222	5
B* 523 °C	2837.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 192 to	2.42526	5
B'* 327 °C	2791.2	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	520.74	5

		Ref.
dt/dP °C/mm		
0.1 mm	170.75	5
BP	0.0743	4
t_e	0.0357	5
30 mm	1.1203	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	55.04	5
30 mm	46.98	5
BP	37.47	5
t_e	33.87	5
t_e (d, e)	33.70	5
ΔHv/T_e	19.14	5
d 327 to	68.90	5
e 513 °C	0.0676	5
d' 192 to	66.11	5
e' 327 °C	0.0590	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8910	5
t_e	0.8511	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.61	5
30	27.70	5
40	26.81	5
Parachor [P] 20°C		
30		
40		
Sugd.	1271.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 182

NAME	1-Tritriacontene		STRUCTURAL FORMULA $CH_3(CH_2)_{30}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{33}H_{66}$	Molecular Weight 462.858

		Ref.
F.P. °C	68.7	2
F.P. 100%		
B.P. °C		
760 mm	473.	2
100	375.52	5
30	330.85	5
10	296.24	5
1	237.75	5
0.1	192.82	5
Press. mm t_e	1906.4	5
Density g/ml 20°C	0.8176≠	2
d_4^t 25	0.8143≠	2
30	0.8111≠	4
a	0.8309	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4591≠	2
25	1.4571≠	2
30	1.4550≠	4
"C"	0.7428	4
MR (Obs.)	154.79	2
MR (Calc.)	154.227	5
(nD-d/2)	1.0503≠	2
Dielectric	2.13	5
A 334 to	7.62921	4
B 572 °C	2958.3	4
C	150.	5
A* 334 to	2.53183	5
B* 532 °C	2868.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 198 to	2.43886	5
B'* 334 °C	2823.7	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	530.21	5

		Ref.
dt/dP °C/mm		
0.1 mm	172.53	5
BP	0.0750	2
t_e	0.0356	5
30 mm	1.1315	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	54.03	5
30 mm	46.12	5
BP	36.84	5
t_e	33.23	5
t_e (d, e)	33.1	5
$\Delta Hv/T_e$	20.49	5
d 334 to	67.70	5
e 522 °C	0.0653	5
d' 198 to	65.09	5
e' 334 °C	0.0573	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8930	5
t_e	0.8529	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.69	5
30	27.77	5
40	26.88	5
Parachor [P] 20°C		
30		
40		
Sugd.	1310.2	5
Exp. L. l. %/wt. u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 183

NAME	1-Tetratriacontene		**STRUCTURAL FORMULA**
Mole % Pur.	Ref.	Molecular Formula $C_{34}H_{68}$	Molecular Weight 476.884
			$CH_3(CH_2)_{31}CH=CH_2$

		Ref.
F.P. °C	70.5	2
F.P. 100%		
B.P. °C		
760 mm	481.	2
100	382.59	5
30	337.48	5
10	302.53	5
1	243.45	5
0.1	198.06	5
Press. mm t_e	1917.3	5
Density g/ml 20°C	0.8186≠	2
d_4^t 25	0.8153≠	2
30	0.8121≠	4
a	0.8319	4
b	$-0.0_3 66$	4
Ref. Index n_D 20°C	1.4596≠	2
25	1.4576≠	2
30	1.4556≠	4
"C"	0.7425	4
MR (Obs.)	159.44	2
MR (Calc.)	158.845	5
(nD-d/2)	1.0503≠	2
Dielectric	2.13	5
A 341 to	7.63409	4
B 581 °C	2992.2	4
C	148.5	5
A* 341 to	2552.8	5
B* 541 °C	2905.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 204 to	2.45201	5
B'* 341 °C	2856.2	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	539.14	5

		Ref.
dt/dP °C/mm		
0.1 mm	174.32	5
BP	0.0757	4
t_e	0.0358	5
30 mm	1.1427	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	53.08	5
30 mm	45.30	5
BP	36.03	5
t_e	32.40	5
t_e (d, e)	32.29	5
ΔHv/T_e	19.02	5
d 341 to	67.11	5
e 531 °C	0.0646	5
d' 204 to	64.13	5
e' 341 °C	0.0558	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8895	5
t_e	0.8484	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	28.78	5
γ 30	27.87	5
40	26.97	5
Parachor [P] 20°C		
30		
40		
Sugd.	1349.2	5
Exp. L.1.%/wt. u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in⁺		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

⁺ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 184

NAME	1-Pentatriacontene		STRUCTURAL FORMULA $CH_3(CH_2)_{32}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{35}H_{70}$	Molecular Weight 490.910

		Ref.
F.P. °C	72.3	2
F.P. 100%		
B.P. °C		
760 mm	489.	2
100	389.65	5
30	344.11	5
10	308.82	5
1	249.15	5
0.1	203.29	5
Press. mm t_e	1937.2	5
Density g/ml 20°C	0.8196≠	2
d_4^t 25	0.8163≠	2
30	0.8131≠	4
a	0.8329	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4601≠	2
25	1.4581≠	2
30	1.4560≠	4
"C"	0.7425	4
MR (Obs.)	164.08	2
MR (Calc.)	163.463	5
(nD-d/2)	1.0503≠	2
Dielectric	2.13	5
A 347 to	7.63888	4
B 589 °C	3026.1	4
C	147.	5
A* 347 to	2.56641	5
B* 549 °C	2938.7	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 209 to	2.46475	5
B'* 347 °C	2888.7	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	548.39	5

		Ref.
dt/dP °C/mm		
0.1 mm	176.10	5
BP	0.0764	4
t_e	0.0358	5
30 mm	1.1538	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	52.18	5
30 mm	44.53	5
BP	35.38	5
t_e	31.74	5
t_e (d, e)	31.65	5
ΔHv/T_e	18.89	5
d 347 to	66.25	5
e 539 °C	0.0631	5
d' 209 to	63.22	5
e' 347 °C	0.0543	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8892	5
t_e	0.8475	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.87	5
30	27.95	5
40	27.05	5
Parachor [P] 20°C		
30		
40		
Sugd.	1388.2	5
Exp. L.1.%/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 185

NAME	1-Hexatriacontene		**STRUCTURAL FORMULA**
Mole % Pur.	Ref.	Molecular Formula $C_{36}H_{72}$	Molecular Weight 504.936

$CH_3(CH_2)_{33}CH=CH_2$

		Ref.
F.P. °C	73.9	2
F.P. 100%		
B.P. °C 760 mm	496.	2
100	395.83	5
30	349.90	5
10	314.30	5
1	227.27	5
0.1	207.81	5
Press. mm t_e	1957.8	5
Density g/ml 20°C	0.8205≠	2
d_4^t 25	0.8172≠	2
30	0.8140≠	4
a	0.8337	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4605≠	2
25	1.4585≠	2
30	1.4566≠	4
"C"	0.7423	4
MR (Obs.)	168.71	2
MR (Calc.)	168.081	5
(nD-d/2)	1.0503≠	2
Dielectric	2.13	5
A 353 to	7.64540	4
B 596 °C	3058.9	4
C	146.	5
A* 353 to	2.57957	5
B* 556 °C	2969.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 214 to	2.47928	5
B'* 353 °C	2920.1	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	556.60	5

		Ref.
dt/dP °C/mm 0.1 mm	177.73	5
BP	0.077	2
t_e	0.0358	5
30 mm	1.1638	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm	51.22	5
30 mm	43.73	5
BP	34.77	5
t_e	31.12	5
t_e (d, e)	31.06	5
ΔHv/T_e	20.46	5
d 353 to	65.18	5
e 546 °C	0.0613	5
d' 214 to	62.18	5
e' 353 °C	0.0527	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8900	5
t_e	0.8480	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.93	5
30	28.01	5
40	27.11	5
Parachor [P] 20°C		
30		
40		
Sugd.	1427.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 186

NAME	1-Heptatriacontene	STRUCTURAL FORMULA	$CH_3(CH_2)_{34}CH=CH_2$
Mole % Pur.	Ref.	Molecular Formula $C_{37}H_{74}$	Molecular Weight 518.962

		Ref.
F.P. °C	75.5	2
F.P. 100%		
B.P. °C 760 mm	503.	2
100	402.03	5
30	355.74	5
10	319.85	5
1	259.17	5
0.1	212.53	5
Press. mm t_e	1972.4	5
Density g/ml 20°C	0.8214≠	2
d_4^t 25	0.8181≠	2
30	0.8149≠	4
a	0.8347	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4610≠	2
25	1.4590≠	2
30	1.4570≠	4
"C"	0.7421	4
MR (Obs.)	173.37	2
MR (Calc.)	172.699	5
(nD-d/2)	1.0502≠	2
Dielectric	2.13	5
A 359 to	7.64418	4
B 604 °C	3081.9	4
C	144.	5
A* 359 to	2.58930	5
B* 564 °C	2993.7	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 219 to	2.48644	5
B'* 359 °C	2942.3	5
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	564.62	5

		Ref.
dt/dP °C/mm 0.1 mm	179.12	5
BP	0.0776	4
t_e	0.0359	5
30 mm	1.1731	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm	50.43	5
30 mm	43.01	5
BP	34.11	5
t_e	30.45	5
t_e (d, e)	30.4	5
ΔHv/T_e	20.46	5
d 359 to	64.49	5
e 554 °C	0.0604	5
d' 219 to	61.44	5
e' 359 °C	0.0518	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8888	5
t_e	0.8462	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	29.02	5
30	28.10	5
40	27.20	5
Parachor [P] 20°C		
30		
40		
Sugd.	1466.2	5
Exp. L. l. %/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 187

NAME	1-Octatriacontene		**STRUCTURAL FORMULA** $CH_3(CH_2)_{35}CH=CH_2$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{38}H_{76}$	**Molecular Weight** 532.988

		Ref.
F.P. °C	77.0	2
F.P. 100%		
B.P. °C		
760 mm	510.	2
100	408.21	5
30	361.52	5
10	325.33	5
1	264.11	5
0.1	217.05	5
Press. mm t_e	1990.9	5
Density g/ml 20°C	0.8223≠	2
d_4^t 25	0.8190≠	2
30	0.8158≠	4
a	0.8356	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4614≠	2
25	1.4594≠	2
30	1.4574≠	4
"C"	0.7419	4
MR (Obs.)	177.99	2
MR (Calc.)	177.317	5
(nD-d/2)	1.0502≠	2
Dielectric	2.13	5
A 365 to	7.65055	4
B 612 °C	3114.6	4
C	143.	5
A* 365 to	2.60324	5
B* 572 °C	3025.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* 224 to	2.50025	5
B'* 365 °C	2973.6	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	572.76	5

		Ref.
dt/dP °C/mm		
0.1 mm	180.76	5
BP	0.0782	4
t_e	0.0359	5
30 mm	1.1831	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	49.56	5
30 mm	42.29	5
BP	33.54	5
t_e	29.86	5
t_e (d, e)	29.81	5
ΔHv/T_e	20.36	5
d 365 to	63.59	5
e 562 °C	0.0589	5
d' 224 to	60.50	5
e' 365 °C	0.0504	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8889	5
t_e	0.8459	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	29.10	5
γ 30	28.17	5
40	27.27	5
Parachor [P] 20°C		
30		
40		
Sugd.	1505.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 188

NAME	1-Nonatriacontene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{39}H_{78}$	Molecular Weight 547.014	$CH_3(CH_2)_{36}CH=CH_2$

		Ref.
F.P. °C	78.4	2
F.P. 100%		
B.P. °C		
760 mm	517.	2
100	414.39	5
30	367.31	5
10	330.81	5
1	269.06	5
0.1	221.57	5
Press. mm t_e	2006.7	5
Density g/ml 20°C	0.8231≠	2
d_4^t 25	0.8198≠	2
30	0.8166≠	4
a	0.8364	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4618≠	2
25	1.4598≠	2
30	1.4618≠	4
"C"	0.7418	4
MR (Obs.)	182.63	2
MR (Calc.)	181.935	5
(nD-d/2)	1.0502≠	2
Dielectric	2.14	5
A 370 to	7.65683	4
B 619 °C	3147.4	4
C	142.	5
A* 370 to	2.61874	5
B* 579 °C	3058.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'*228 to	2.51369	5
B'*370 °C	3004.9	5
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	580.82	5

		Ref
dt/dP °C/mm		
0.1 mm	182.40	5
BP	0.0788	2
t_e	0.0359	5
30 mm	1.1931	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	48.75	5
30 mm	41.60	5
BP	32.96	5
t_e	29.27	5
t_e (d, e)	29.25	5
ΔHv/T_e	20.35	5
d 370 to	62.82	5
e 569 °C	0.0578	5
d' 228 to	59.61	5
e' 370 °C	0.0490	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8881	5
t_e	0.8446	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	29.16	5
30	28.24	5
40	27.34	5
Parachor [P] 20°C		
30		
40		
Sugd.	1544.2	5
Exp. L.1.%/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 189

NAME	1-Tetracontene		**STRUCTURAL FORMULA**
Mole % Pur.	Ref.	Molecular Formula $C_{40}H_{80}$	Molecular Weight 561.040

$CH_3(CH_2)_{37}CH=CH_2$

		Ref.
F.P. °C	79.8	2
F.P. 100%		
B.P. °C 760 mm	523.	2
100	419.69	5
30	372.28	5
10	335.51	5
1	273.31	5
0.1	225.48	5
Press. mm t_e	2022.3	5
Density g/ml 20°C	$0.8238^{\neq}$	2
d_4^t 25	$0.8205^{\neq}$	2
30	$0.8173^{\neq}$	4
a	0.8371	4
b	-0.0_3366	4
Ref. Index n_D 20°C	$1.4622^{\neq}$	2
25	$1.4602^{\neq}$	2
30	$1.4582^{\neq}$	4
"C"	0.7417	4
MR (Obs.)	187.30	2
MR (Calc.)	186.553	5
(nD-d/2)	$1.0502^{\neq}$	2
Dielectric	2.14	5
A 376 to 625 °C	7.66107	4
B	3174.1	4
C	141.	5
A* 376 to 585 °C	2.63081	5
B*	3084.5	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* 232 to 376 °C	2.52552	5
B'*	3030.5	5
Ac to °C t_c		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	587.80	5

		Ref.
dt/dP °C/mm 0.1 mm	183.76	5
BP	0.0794	4
t_e	0.0359	5
30 mm	1.2016	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm	47.92	5
30 mm	40.90	5
BP	32.39	5
t_e	28.70	5
t_e (d, e)	28.73	5
$\Delta Hv/T_e$	20.33	5
d 376 to 575 °C	61.94	5
e	0.0565	5
d' 232 to 376 °C	58.70	5
e'	0.0478	5
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8881	5
t_e	0.8443	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	29.22	5
30	28.29	5
40	27.39	5
Parachor [P] 20°C		
30		
40		
Sugd.	1583.2	5
Exp. L. 1. %/wt. u.		
Dispersion	$102.^{\neq}$	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in + Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 1

NAME	Vinyl bromide Bromoethene			STRUCTURAL FORMULA $CHBr{=}CH_2$
Mole % Pur. 100.00	Ref. 1	Molecular Formula C_2H_3Br	Molecular Weight 106.960	

		Ref.
F.P. °C	-139.54	1
F.P. 100%	-139.54	1
B.P. °C		
760 mm	+15.80	2
100	-31.7	5
30	-52.3	5
10		
1		
Pressure		
mm 25°C	1033.	5
t_e	777.0	5
Density		
g/ml 20°C	1.4933≠	2
d_4^t 25	1.4738≠	2
30	1.4542≠	5
a	1.5730	4
b	-0.00372	4
Ref. Index		
n_D 20°C	1.441≠	2
25	1.435≠	2
30		
"C"	0.5847	5
MR (Obs.)	18.917	4
MR (Calc.)	18.734	5
(nD-d/2)	0.6944	5
Dielectric	5.628#	1
A -60 to	6.66715	5
B 60 °C	953.4	5
C	236.0	5
A* -60 to	1.23701	5
B* 20 °C	899.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°	0.03453	1
consts. B°		
t_e °C	16.44	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0300	5
BP	0.038	2
t_e	0.03736	5
30 mm	0.5224	5
ΔHm cal/g	11.44	4
ΔHv cal/g		
25°C	50.5	5
30 mm	80.8	5
BP	52.4	5
t_e	51.6	5
t_e (d, e)	51.2	5
ΔHv/T_e	19.12	5
d -55 to	58.0	5
e 20 °C	0.417	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9512	5
30 mm	1.0000	5
BP	0.9650	5
t_e	0.9642	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η -20 °C	0.2759	1
-10	0.2528	1
0	0.2393	1
B^v -30 to	213.8	4
A^v 10 °C	$\bar{2}$.59636	4
(B^v)		
(A^v)		
c_p liq. °		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °		
h		
f' to		
g' °		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	20.04≠	4
γ 25	18.97≠	4
30	17.92≠	4
Parachor [P]		
20°C		
30		
40		
Sugd.	152.1	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for the liquid at saturation pressure # at 5°C + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: 1, 2

PURIFICATION: 1, 2

LITERATURE REFERENCES:

No. 2

NAME	Vinyl chloride Chloroethene		STRUCTURAL FORMULA CH_2=CHCl
Mole % Pur. 100.0	Ref. 1	Molecular Formula C_2H_3Cl	Molecular Weight 62.501

		Ref.
F.P. °C	-153.79	1
F.P. 100%		
B.P. °C		
760 mm	-13.37	1
100	-55.8	4
30	-73.95	4
10	-87.5	4
1	-109.42	4
Pressure		
mm 25°C	2660.0	4
t_e	692.3	5
Density		
g/ml -30°C	0.99986	1
d_4^t -25	0.99176	1
-20	0.98343	1
a	0.95421	4
b	-0.00158	4
Ref. Index		
n_D -10°C	1.4046	5
25		
30		
"C"	0.54	5
MR (Obs.)		
MR (Calc.)	15.836	5
(nD-d/2)-10°C	0.9213	5
Dielectric	6.26≠	1
A -100 to	6.49712	4
B 50 °C	783.4	4
C	230.0	4
A* -80 to	0.84290	5
B* 0 °C	727.85	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 50 to	10.71749	5
Bc t_c °C	4927.2	5
Cc	652.	5
Cryos. A°	0.04002	1
consts. B°		
t_e °C	-15.76	5

		Ref.
dt/dP		
°C/mm		
25°C	0.01355	4
BP	0.03423	4
t_e	0.03675	5
30 mm	0.4500	4
ΔHm cal/g	18.14	4
ΔHv cal/g		
25°C	71.26	5
30 mm	93.50	5
BP	79.53	5
t_e	79.84	5
t_e (d, e)	80.08	5
ΔHv/T_e	19.38	5
d -80 to	76.45	5
e 20 °C	0.2306	5
d' to		
e' °C		
d_c g/ml	0.370	5
v_c ml/g	2.70	5
t_c °C	156.5	5
P_c mm	42000.	5
PV/RT		
25°C	0.9178	5
30 mm	1.0000	5
BP	0.9640	5
t_e	0.9652	5
t_c	0.264	5
ΔHc kcal/m		
ΔHf	-144.0	5
ΔFf		
Viscosity centistokes		
η -40 °C	0.3339	1
-30	0.3026	1
-20	0.2780	1
-10	0.2563	5
B^v -50 to	234.945	4
A^v -10 °C	$\bar{2}$.51616	4
(B^v) to		
(A^v) °C		
c_p liq. 293°K	0.38	1
c_p vap. 298°K	0.205	1
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	to		
n	°K		
o			
m'	to		
n'	°K		
o'			
Surface tension			
dynes/cm -30°C		23.87	5
γ -20		22.27	5
-10		20.88	5
Parachor [P]			
20°C			
30			
40			
Sugd.		138.4	5
Exp. L.l.%/wt.		2.5	1
u.		69.9	1
Dispersion			
Flash Point °C		-78.0	1
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in		0.11	1

T_R = 0.75 T_c

≠ 17.2°C

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 3

NAME	cis-1-Chloro-1-propene			STRUCTURAL FORMULA $CHCl{=}CH{-}CH_3$
Mole % Pur.	Ref. 2	Molecular Formula C_3H_5Cl	Molecular Weight 76.527	

		Ref.
F.P. °C	-134.8	2
F.P. 100%		
B.P. °C 760 mm	+32.8	2
100	-15.1	5
30	-36.2	5
10	-52.1	5
1		
Pressure mm 25°C	575.0	5
t_e	817.9	5
Density g/ml 20°C	0.9347	2
d_4^t 25	0.9271	2
30	0.9193	5
a	0.9656	4
b	-0.00144	4
Ref. Index n_D 20°C	1.4055	2
25	1.400	2
30		
"C"	0.5780	4
MR (Obs.)	20.828	4
MR (Calc.)	20.454	5
(nD-d/2)	0.9382	4
Dielectric		
A -40 to	6.88871	5
B 95 °C	1065.3	5
C	233.	5
A* -40 to	1.24621	5
B* 45 °C	994.8	5
K		
c		
t_k to		
t_x °C		
A' to B' °C C'		
A'* to B'* °C		
Ac 95 to	7.26279	5
Bc t_c °C	1322.0	5
Cc	270.	5
Cryos. A° consts. B°		
t_e °C	34.93	5

		Ref.
dt/dP °C/mm		
25°C	0.0472	5
BP	0.0379	5
t_e	0.03578	5
30 mm	0.5266	5
ΔHm cal/g		
ΔHv cal/g 25°C	81.72	5
30 mm	92.30	5
BP	80.42	5
t_e	80.38	5
t_e (d, e)	80.06	5
$\Delta Hv/T_e$	19.96	5
d -40 to	86.07	5
e 40 °C	0.1722	5
d' to e' °C		
d_c g/ml	0.337	5
v_c ml/g	2.97	5
t_c °C	217.8	5
P_c mm	35700.	5
PV/RT 25°C	0.9631	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9540	5
t_c	0.265	5
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C (B^v) (A^v)		
c_p liq. °		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	21.84	5
25	21.10	5
30	20.36	5
Parachor [P] 20°C		
30		
40		
Sugd.	177.4	5
Exp. L.1.%/wt. u. Dispersion		
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 4

NAME	trans-1-Chloro-1-propene		STRUCTURAL FORMULA CHCl=CH-CH_3
Mole % Pur.	Ref. 2	Molecular Formula C_3H_5Cl	Molecular Weight 76.527

		Ref.
F.P. °C	-99.0	2
F.P. 100%		
B.P. °C		
760 mm	37.4	2
100	-11.2	5
30	-32.6	5
10	-48.7	5
1		
Pressure mm 25°C	487.2	5
t_e	830.8	5
Density g/ml 20°C	0.935	2
d_4^t 25	0.927	2
30	0.9185	4
a	0.9696	5
b	-0.00162	5
Ref. Index n_D 20°C	1.4054	2
25	1.400	2
30		
"C"	0.578	5
MR (Obs.)	20.828	4
MR (Calc.)	20.454	5
(nD-d/2)	0.9379	4
Dielectric		
A -40 to	6.88340	5
B 100 °C	1078.3	5
C	232.	5
A* -40 to	1.24083	5
B* 50 °C	1007.1	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 100 to	7.28034	5
Bc t_c °C	1349.	5
Cc	270.	5
Cryos. consts. A°		
B°		
t_e °C	40.03	5

		Ref.
dt/dP °C/mm		
25°C	0.05405	5
BP	0.0385	5
t_e	0.03594	5
30 mm	0.5341	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.51	5
30 mm	93.81	5
BP	81.57	5
t_e	81.03	5
t_e (d, e)	81.11	5
ΔHv/T_e	19.82	5
d -40 to	88.11	5
e 50 °C	0.1748	5
d' to		
e' °C		
d_c g/ml	0.333	5
v_c ml/g	3.000	5
t_c °C	225.0	5
P_c mm	35900.	5
PV/RT		
25°C	0.9654	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9525	5
t_c	0.265	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °C		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °C		
h		
f' to		
g' °C		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.77	5
γ 25	21.13	5
30	20.33	5
Parachor [P] 20°C		
30		
40		
Sugd.	177.4	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 5

NAME	1, 1, 2-Trichloroethylene				STRUCTURAL FORMULA $CCl_2=CHCl$
Mole % Pur.	Ref.	Molecular Formula C_2HCl_3		Molecular Weight 131.399	

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	87.08	1
100	31.54	4
30	6.90	5
10	-11.85	5
1	-42.89	5
Pressure		
mm 25°C	74.31	5
t_e	975.52	5
Density		
g/ml 20°C	1.46422	1
d_4^t 25	1.45541	1
60	1.39501	1
a	1.49948	4
b	-0.00174	4
Ref. Index		
n_D 20°C	1.47734	1
25	1.47457	1
50	1.46056	1
"C"	0.4302	4
MR (Obs.)	25.37	4
MR (Calc.)	25.57	5
(nD-d/2)	0.74523	4
Dielectric		
A 7 to	7.02808	4
B 155 °C	1315.0	4
C	230.	4
A* 7 to	1.54642	5
B* 106 °C	1230.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 155 to	7.4675	5
Bc t_c °C	1675.	5
Cc	280.	5
Cryos. A°		
consts. B°		
t_e °C	95.60	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2890	5
BP	0.04369	5
t_e	0.0359	5
30 mm	0.6178	5
ΔHm cal/g		
ΔHv cal/g		
25°C	62.33	5
30 mm	64.02	5
BP	56.43	5
t_e	55.61	5
t_e (d, e)	55.62	5
$\Delta Hv/T_e$	19.81	5
d 7 to	64.67	5
e 96 °C	0.0946	5
d' to		
e' °C		
d_c g/ml	0.513	5
v_c ml/g	1.950	5
t_c °C	298.	5
P_c mm	36876.	5
PV/RT		
25°C	0.9957	5
30 mm	1.0000	5
BP	0.9578	5
t_e	0.9507	5
t_c	0.265	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.3844	1
40	0.3291	1
60	0.2867	1
80	0.2553	1
B^v 10 to	311.03	4
A^v 70 °C	$\bar{2}.52395$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	29.28	1
γ 30	27.94	1
40	26.76	1
Parachor [P]		
20°C	208.7	4
30	208.8	4
40	209.0	4
Sugd.	212.8	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 6

NAME	Perchloroethylene			STRUCTURAL FORMULA $CCl_2{=}CCl_2$
Mole % Pur.	Ref.	Molecular Formula C_2Cl_4	Molecular Weight 165.848	

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	120.97	1
100	60.97	4
30	34.37	4
10	14.02	5
1	-20.12	5
Pressure mm 25°C	18.47	5
t_e	1086.	5
Density g/ml 20°C	1.62272	1
d_4^t 25	1.61446	1
30	1.60590	4
a	1.65599	4
b	-0.00166	4
Ref. Index n_D 20°C	1.50534	1
25	1.50284	1
30	1.50004	4
"C"	0.4095	4
MR (Obs.)	30.34	4
MR (Calc.)	30.437	5
(nD-d/2)	0.69417	4
Dielectric		
A 34 to	7.02003	4
B 187 °C	1415.5	4
C	221.	4
A* 34 to	1.58865	5
B* 144 °C	1321.5	5
K		
c		
t_k to		
t_x °C		
A' 25 to	7.41073	5
B' 34 °C	1622.1	5
C'	239.	5
A'* 25 to	1.96901	5
B'* 34 °C	1518.6	5
Ac 187 to	7.4489	5
Bc t_c °C	1787.	5
Cc	271.	5
Cryos. A° consts. B°		
t_e °C	134.28	5

		Ref.
dt/dP °C/mm		
25°C	1.0102	5
BP	0.04721	5
t_e	0.0357	5
30 mm	0.6670	5
ΔHm cal/g		
ΔHv cal/g		
25°C	57.09	5
30 mm	56.65	5
BP	50.0	5
t_e	48.96	5
t_e (d, e)	48.98	5
$\Delta Hv/T_e$	19.93	5
d 34 to	59.29	5
e 134 °C	0.0768	5
d' 25 to	58.27	5
e' 34 °C	0.0472	5
d_c g/ml	0.573	4
v_c ml/g	1.745	4
t_c °C	340.	5
P_c mm	33687.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9672	5
t_e	0.9580	5
t_c	0.255	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η 20 °C	0.54976	1
40	0.45702	1
60	0.39347	1
80	0.34061	1
B^v 10 to	$35\underline{3}.2$	4
A^v 90 °C	$\bar{2}.53223$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	31.33	1
30	30.81	1
40	30.20	1
Parachor [P] 20°C	241.8	4
30	243.3	4
40	244.6	4
Sugd.	250.0	5
Exp. L.l.%/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Distillation

LITERATURE REFERENCES:

No. 7

NAME	Hexachloropropene Hexachloropropylene		STRUCTURAL FORMULA $CCl_3CCl{=}CCl_2$
Mole % Pur.	Ref.	Molecular Formula C_3Cl_6	Molecular Weight 248.772

		Ref.
F.P. °C	-57.12	1
F.P. 100%		
B.P. °C		
760 mm	214.14	1
100	141.13	1
30	108.97	4
10	84.5	5
1	43.5	5
Pressure		
mm 25°C	0.2717	5
t_e	1336.0	5
Density		
g/ml 20°C	1.76376	1
d_4^t 25	1.75656	1
30	1.7494	4
a	1.79256	4
b	-0.00144	4
Ref. Index		
n_D 20°C	1.54956	1
25	1.54720	1
30	1.53570	1
"C"	0.40748	4
MR (Obs.)	44.903	4
MR (Calc.)	44.787	5
(nD-d/2)	0.66768	4
Dielectric	2.682	1
A 109 to	6.92329	1
B 267 °C	1649.33	1
C	193.87	1
A* 110 to	1.61793	5
B* 250 °C	1550.51	5
K		
c		
t_k to		
t_x °C		
A' 20 to	7.2664	5
B' 109 °C	1863.7	5
C'	212.95	5
A'* 20 to	1.9832	5
B'* 109 °C	1765.4	5
Ac 269 to	7.3256	5
Bc t_c °C	2041.	5
Cc	245.7	5
Cryos. A°		
consts. B°		
t_e °C	240.45	5

		Ref
dt/dP		
°C/mm		
25°C	48.562	5
BP	0.05767	4
t_e	0.03718	5
30 mm	0.8050	4
ΔHm cal/g		
ΔHv cal/g		
25°C	53.40	5
30 mm	47.91	5
BP	40.7	5
t_e	39.04	5
t_e (d, e)	38.89	5
$\Delta Hv/T_e$	19.06	5
d 100 to	55.41	5
e 245 °C	0.0687	5
d' 20 to	55.03	5
e' 100 °C	0.0653	5
d_c g/ml	0.58	5
v_c ml/g	1.72	5
t_c °C	447.	5
P_c mm	23966.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9522	5
t_e	0.9348	5
t_c	0.229	5
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η 20 °C	1.9698	1
40	1.4049	1
60	1.0652	1
80	0.8515	1
B^v 35 to	601.4	4
A^v 90 °C	$\bar{2}.22746$	4
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	38.12	1
γ 30	36.95	1
40	35.87	1
Parachor [P]		
20°C	350.5	4
30	349.2	4
40	350.9	4
Sugd.	363.4	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water	0.015	1
Water in	0.014	1

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: Dow

PURIFICATION: Dist. chromat.

LITERATURE REFERENCES:

No. 1

NAME	Propadiene Allene			STRUCTURAL FORMULA $CH_2=C=CH_2$
Mole % Pur.	Ref.	Molecular Formula C_3H_4	Molecular Weight 40.062	

		Ref.
F.P. °C	-136.	2
F.P. 100%		
B.P. °C		
760 mm	-34.5	2
100	-73.0	4
30	-88.2	4
10	-99.	4
1		
Pressure		
mm 25°C	4286.	5
t_e	637.1	5
Density		
g/ml 20°C		
d_4^t 25		
30		
a		
b		
Ref. Index		
n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)		
(nD-d/2)		
Dielectric		
A -95 to	5.6457	2
B 25 °C	441.0	2
C	194.0	2
A* -90 to	$\bar{1}.89775$	5
B* 15 °C	410.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	-38.8	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0110	5
BP	0.033	4
t_e	0.0372	5
30 mm	0.3674	5
ΔHm cal/g		
ΔHv cal/g		
25°C		
30 mm	153.8	5
BP	109.0	5
t_e	112.0	5
t_e (d, e)	112.5	5
$\Delta Hv/T_e$	19.23	5
d -90 to	80.2	5
e -30 °C	0.834	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	120.0	2
P_c mm		
PV/RT		
25°C	0.8750	5
30 mm	1.0000	5
BP	0.9700	5
t_e	0.9769	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °C		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °C		
h		
f' to		
g' °C		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C		
γ 30		
40		
Parachor [P]		
20°C		
30		
40		
Sugd.		
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 2

NAME	1, 2-Butadiene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_4H_6	Molecular Weight 54.088	$CH_2=C=CHCH_3$

		Ref.
F.P. °C	-136.190	2
F.P. 100%		
B.P. °C		
760 mm	10.85	2
100	-33.83	2
30	-54.	2
10	-69.07	2
1	-94.48	5
Pressure mm 25°C	1259.8	5
t_e	758.60	5
Density g/ml 20°C	0.652≠	2
d_4^t 25	0.646≠	2
30	0.640	4
a	0.6770	4
b	-0.0011	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	19.738	5
(nD-d/2)		
Dielectric		
A -54 to	7.1619	2
B 68 °C	1121.	2
C	251.0	2
A* -54 to	1.37634	5
B* 21 °C	1045.57	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 68 to	7.62883	5
Bc t_c °C	1438.26	5
Cc	293.28	5
Cryos. A°		
consts. B°		
t_e °C	10.80	5

		Ref
dt/dP °C/mm		
25°C	0.0234	5
BP	0.03495	4
t_e	0.03500	5
30 mm	0.5022	5
ΔHm cal/g		
ΔHv cal/g		
25°C	104.13	5
30 mm	117.39	5
BP	106.74	5
t_e	106.76	5
t_e (d, e)	106.75	5
ΔHv/T_e	20.33	5
d -54 to	108.53	5
e 11 °C	0.1646	5
d' to		
e' °C		
d_c g/ml	0.2468	3
v_c ml/g	4.051	3
t_c °C	170.6	3
P_c mm	33770.	3
PV/RT		
25°C	0.9461	5
30 mm	1.0000	5
BP	0.9600	5
t_e	0.9601	5
t_c		
ΔHc kcal/m	588.37	2
ΔHf gas	38.77	2
ΔFf gas	47.43	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.35553	2
400	0.43522	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0654	4
n 600 °K	0.0011	4
o	$-0.0_{6}42$	4
m' 700 to	0.1346	4
n' 1000 °K	$0.0_{3}90$	4
o'	$-0.0_{6}30$	4
Surface tension dynes/cm. 20°C	16.56	5
γ 30	15.24	5
40	13.95	5
Parachor [P]		
20°C		
30		
40		
Sugd.	168.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75 T_c$ ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES: 3 ASTM Sp. Tech. Pub. 109

No. 3

NAME	1, 3-Butadiene				STRUCTURAL FORMULA CH_2=CHCH=CH_2
Mole % Pur.		Ref.	Molecular Formula C_4H_6	Molecular Weight 54.088	

		Ref.
F. P. °C	-108.915	2
F. P. 100%		
B. P. °C		
760 mm	-4.413	2
100	-47.035	2
30	-65.74	2
10	-79.89	2
1	-103.17	5
Pressure mm 25°C	2104.5	5
t_e	714.96	5
Density g/ml 20°C	0.6211≠	2
d_4^t 25	0.6149≠	2
30	0.6086	4
a	0.6480	4
b	-0.0011	4
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.) (nD-d/2)	21.008	5
Dielectric		
A -66 to 46 °C	6.85941	2
B	935.53	2
C	239.55	2
A* -66 to 5 °C	1.11738	5
B*	872.39	5
K		
c		
t_k to		
t_x °C		
A' to °C		
B'		
C'		
A'* to		
B'* °C		
Ac 46 to t_c °C	7.29710	5
Bc	1202.54	5
Cc	277.80	5
Cryos. consts. A°		
B°		
t_e °C	-5.97	5

		Ref.
dt/dP °C/mm		
25°C	0.0154	5
BP	0.03377	4
t_e	0.03542	5
30 mm	0.4675	5
ΔHm cal/g		
ΔHv cal/g 25°C	92.25	5
30 mm	112.75	5
BP	98.89	5
t_e	99.26	5
t_e (d, e)	99.25	5
ΔHv/T_e	20.09	5
d -66 to -6 °C	97.90	5
e	0.2259	5
d' to °C		
e'		
d_c g/ml	0.245	2
v_c ml/g	4.082	2
t_c °C	152.	2
P_c mm	32452.	2
PV/RT 25°C	0.9269	5
30 mm	1.0000	5
BP	0.9600	5
t_e	0.9616	5
t_c	0.271	2
ΔHc kcal/m	575.93	2
ΔHf	21.21	2
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.35331	2
400	0.44908	2
c_v vap.		

			Ref.
f	to °K		
g			
h			
f'	to °K		
g'			
h'			
m	300 to 600 °K	-0.0514	4
n		0.0016	4
o		$-0.0_{6}98$	4
m'	700 to 1000 °K	0.1766	4
n'		$0.0_{3}87$	4
o'		$-0.0_{6}30$	4
Surface tension dynes/cm. γ 20°C		13.41	5
30		12.20	5
40		11.01	5
Parachor [P] 20°C			
30			
40			
Sugd.		168.2	5
Exp. L. l. %/wt. u.			
Dispersion			
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

T_R = 0.75 T_c ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 4

NAME	1, 2-Pentadiene		STRUCTURAL FORMULA $CH_2{=}C{=}CHCH_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114

		Ref.
F.P. °C	-137.26	2
F.P. 100%		
B.P. °C		
760 mm	44.856	2
100	-4.27	2
30	-26.04	2
10	-42.6	2
1	-69.99	5
Pressure		
mm 25°C	367.26	5
t_e	853.68	5
Density		
g/ml 20°C	0.69257	2
d_4^t 25	0.68760	2
30	0.68259	4
a	0.71265	4
b	-0.0_3947	4
Ref. Index		
n_D 20°C	1.42091	2
25	1.41773	2
30	1.41446	4
"C"	0.8080	4
MR (Obs.)	24.936	2
MR (Calc.)	24.356	5
(nD-d/2)	1.07462	2
Dielectric	2.02	5
A -26 to	7.01100	2
B 97 °C	1154.42	2
C	234.65	2
A* -26 to	1.29889	5
B* 58 °C	1079.85	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 97 to	7.44719	5
Bc t_c °C	1462.26	5
Cc	276.31	5
Cryos. A°		
consts. B°		
t_e °C	48.31	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0691	5
BP	0.03867	4
t_e	0.03528	5
30 mm	0.5457	5
ΔHm cal/g		
ΔHv cal/g		
25°C	99.47	5
30 mm	108.86	5
BP	95.76	5
t_e	95.12	5
t_e (d, e)	95.12	5
ΔHv/T_e	20.15	5
d -26 to	104.05	5
e 48 °C	0.1847	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	221.	5
P_c mm	32089.	5
PV/RT		
25°C	0.9744	5
30 mm	1.0000	5
BP	0.9575	5
t_e	0.9543	5
t_c		
ΔHc kcal/m	736.25	2
ΔHf gas	34.80	2
ΔFf gas	50.29	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37144	2
400	0.46099	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0148	4
n 600 °K	0.0014	4
o	-0.0_673	4
m' 700 to	0.1189	4
n' 1000 °K	0.0010	4
o'	-0.0_637	4
Surface tension		
dynes/cm. 20°C	19.57	5
γ 30	18.41	5
40	17.27	5
Parachor [P]		
20°C		
30		
40		
Sugd.	207.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	164.6	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 5

NAME	1, cis-3-Pentadiene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_5H_8		Molecular Weight 68.114	$CH_2{=}CH\,CH{=}CH\,CH_3$

		Ref.
F. P. °C	-140.820	2
F. P. 100%		
B. P. °C		
760 mm	44.068	2
100	-5.02	2
30	-26.67	2
10	-43.1	2
1	-70.22	5
Pressure		
mm 25°C	379.07	5
t_e	851.42	5
Density		
g/ml 20°C	0.69102	2
d_4^t 25	0.68592	2
30	0.68078	4
a	0.7116	4
b	$-0.0_{3}97$	4
Ref. Index		
n_D 20°C	1.43634	2
25	1.43291	2
30	1.42943	4
"C"	0.8377	4
MR (Obs.)	25.790	2
MR (Calc.)	25.626	5
(nD-d/2)	1.09083	2
Dielectric	2.06	5
A -27 to	6.94178	2
B 96 °C	1118.37	2
C	231.33	2
A* -27 to	1.23515	5
B* 57 °C	1046.11	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 96 to	7.37139	5
Bc t_c °C	1417.55	5
Cc	272.55	5
Cryos. A°		
consts. B°		
t_e °C	47.45	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0673	5
BP	0.03875	4
t_e	0.03544	5
30 mm	0.5421	5
ΔHm cal/g		
ΔHv cal/g		
25°C	98.84	5
30 mm	109.02	5
BP	95.09	5
t_e	94.44	5
t_e (d, e)	94.42	5
$\Delta Hv/T_e$	20.06	5
d -27 to	103.76	5
e 47 °C	0.1969	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	219.	5
P_c mm	30901.	5
PV/RT		
25°C	0.9739	5
30 mm	1.0000	5
BP	0.9575	5
t_e	0.9543	5
t_c		
ΔHc kcal/m	720.15	2
ΔHf gas	18.70	2
ΔFf gas	34.88	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap 300°K	0.33326	2
400	0.43310	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0544	4
n 600 °K	0.0015	4
o	$-0.0_{6}73$	4
m' 700 to	0.1498	4
n' 1000 °K	$0.0_{3}91$	4
o'	$-0.0_{6}29$	4
Surface tension		
dynes/cm. 20°C	19.39	5
γ 30	18.21	5
40	17.05	5
Parachor [P]		
20°C		
30		
40		
Sugd.	207.2	5
Exp. L. l. %/wt.		
u.		
Dispersion	243.8	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 6

NAME	1, trans-3-Pentadiene	STRUCTURAL FORMULA CH_2=CH CH=CH CH_3
Mole % Pur.	Ref.	Molecular Formula C_5H_8
Molecular Weight 68.114		

		Ref.
F.P. °C	-87.470	2
F.P. 100%		
B.P. °C 760 mm	42.032	2
100	-7.06	2
30	-28.7	2
10	-45.1	2
1	-72.15	5
Pressure mm 25°C	410.5	5
t_e	845.6	5
Density g/ml 20°C	0.67603	2
d_4^t 25	0.67102	2
30	0.66597	4
a	0.6963	4
b	$-0.0_{3}95$	4
Ref. Index n_D 20°C	1.43008	2
25	1.42669	2
30	1.42302	4
"C"	0.8448	4
MR (Obs.)	26.032	2
MR (Calc.)	25.626	5
(nD-d/2)	1.09206	2
Dielectric	2.04	5
A -29 to 92 °C	6.92257	2
B	1108.94	2
C	232.34	2
A* -29 to 55 °C	1.21772	5
B*	1036.67	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to		
B'* °C		
Ac 92 to t_c °C	7.35341	5
Bc	1406.44	5
Cc	273.32	5
Cryos. consts. A°		
B°		
t_e °C	45.22	5

		Ref.
dt/dP °C/mm 25°C	0.0632	5
BP	0.03879	4
t_e	0.03567	5
30 mm	0.5414	5
ΔHm cal/g		
ΔHv cal/g 25°C	97.06	5
30 mm	107.39	5
BP	93.76	5
t_e	93.17	5
t_e (d, e)	93.15	5
ΔHv/T_e	19.93	5
d -29 to 45 °C	101.86	5
e	0.1926	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C	214.	5
P_c mm	29456.	5
PV/RT 25°C	0.9724	5
30 mm	1.0000	5
BP	0.9575	5
t_e	0.9545	5
t_c		
ΔHc kcal/m	720.05	2
ΔHf gas	18.60	2
ΔFf gas	35.07	2
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.36556	2
400	0.45806	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0087	4
n	0.0014	4
o	$-0.0_{6}66$	4
m' 700 to 1000 °K	0.1303	4
n'	0.0010	4
o'	$-0.0_{6}37$	4
Surface tension dynes/cm. γ 20°C	17.75	5
30	16.66	5
40	15.58	5
Parachor [P] 20°C		
30		
40		
Sugd.	207.2	5
Exp. L. l. %/wt. u.		
Dispersion	245.7	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in + Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 7

NAME	1,4-Pentadiene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114	$CH_2=CHCH_2CH=CH_2$

		Ref.
F.P. °C	-148.275	2
F.P. 100%		
B.P. °C		
760 mm	25.967	2
100	-20.96	2
30	-41.5	2
10	-57.1	2
1	-82.69	5
Pressure		
mm 25°C	734.3	5
t_e	800.1	5
Density		
g/ml 20°C	0.66076	2
d_4^t 25	0.65571	2
30	0.6506	4
a	0.6816	4
b	-0.0_392	4
Ref. Index		
n_D 20°C	1.38876	2
25	1.38542	2
30	1.38247	4
"C"	0.7857	4
MR (Obs.)	24.367	2
MR (Calc.)	24.356	5
(nD-d/2)	1.05838	2
Dielectric	1.93	5
A -41 to	6.84880	2
B 72 °C	1025.016	2
C	232.354	2
A* -41 to	1.1686	5
B* 37 °C	957.53	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 72 to	7.27510	5
Bc t_c °C	1301.04	5
Cc	270.91	5
Cryos. A°		
consts. B°		
t_e °C	27.43	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0382	5
BP	0.03720	4
t_e	0.03573	5
30 mm	0.5142	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.28	5
30 mm	101.49	5
BP	88.09	5
t_e	87.82	5
t_e (d, e)	87.80	5
ΔHv/T_e	19.90	5
d -41 to	93.24	5
e 27 °C	0.1985	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	187.	5
P_c mm	27238.	5
PV/RT		
25°C	0.9589	5
30 mm	1.0000	5
BP	0.9580	5
t_e	0.9565	5
t_c		
ΔHc kcal/m	726.65	2
ΔHf gas	25.20	2
ΔFf gas	40.69	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.36997	2
400	0.45952	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0221	4
n 600 °K	0.0013	4
o	-0.0_666	4
m' 700 to	0.1175	4
n' 1000 °K	0.0010	4
o'	-0.0_637	4
Surface tension		
dynes/cm. 20°C	16.09	5
γ 30	15.03	5
40	13.98	5
Parachor [P]		
20°C		
30		
40		
Sugd.	207.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	153.1	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 8

NAME	2,3-Pentadiene		STRUCTURAL FORMULA $CH_3CH{=}C{=}CHCH_3$
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114

		Ref.
F.P. °C	-125.650	2
F.P. 100%		
B.P. °C		
760 mm	48.265	2
100	-0.64	2
30	-22.1	2
10	-38.4	2
1	-65.24	5
Pressure mm 25°C	320.0	5
t_e	862.8	5
Density g/ml 20°C	0.69502	2
d_4^t 25	0.69000	2
30	0.68494	4
a	0.7152	4
b	-0.0_396	4
Ref. Index n_D 20°C	1.42842	2
25	1.42509	2
30	1.42170	4
"C"	0.8187	4
MR (Obs.)	25.235	2
MR (Calc.)	24.356	5
(nD-d/2)	1.08091	2
Dielectric	2.04	5
A -22 to	6.88603	2
B 101 °C	1086.64	2
C	223.04	2
A* -22 to	1.18444	5
B* 62 °C	1018.30	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 101 to	7.30054	5
Bc t_c °C	1372.39	5
Cc	263.23	5
Cryos. consts. A°		
B°		
t_e °C	52.05	5

		Ref.
dt/dP °C/mm		
25°C	0.0768	5
BP	0.03870	4
t_e	0.03505	5
30 mm	0.5377	5
ΔHm cal/g		
ΔHv cal/g		
25°C	102.91	5
30 mm	114.00	5
BP	97.70	5
t_e	96.86	5
t_e (d, e)	96.82	5
ΔHv/T_e	20.28	5
d -22 to	108.87	5
e 52 °C	0.2315	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	226.	5
P_c mm	31482.	5
PV/RT		
25°C	0.9770	5
30 mm	1.0000	5
BP	0.9570	5
t_e	0.9534	5
t_c		
ΔHc kcal/m	734.55	2
ΔHf gas	33.10	2
ΔFf gas	49.22	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.35675	2
400	0.43897	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0660	4
n 600 °K	0.0011	4
o	-0.0_637	4
m' 700 to	0.0790	4
n' 1000 °K	0.0010	4
o'	-0.0_637	4
Surface tension dynes/cm. γ 20°C	19.87	5
30	18.69	5
40	17.53	5
Parachor [P] 20°C		
30		
40		
Sugd.	207.2	5
Exp. L.l.%/wt.		
u.		
Dispersion	174.5	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

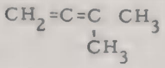
PURIFICATION: API

LITERATURE REFERENCES:

No. 9

NAME	3-Methyl-1, 2-butadiene		
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114

STRUCTURAL FORMULA



$$\begin{array}{l} CH_2{=}C{=}C\ \ CH_3 \\ \qquad\quad\ \ |\\ \qquad\quad CH_3 \end{array}$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	40.	2
100	-8.	2
30	-30.	2
10	-46.	2
1	-72.69	5
Pressure mm 25°C	438.6	5
t_e	840.4	5
Density g/ml 20°C	0.680	2
d_4^t 25	0.675	2
30	0.670	4
a	0.7002	4
b	$-0.0_{3}94$	4
Ref. Index		
n_D 20°C	1.410	2
25	1.407	2
30	1.404	4
"C"	0.8028	4
MR (Obs.)	24.818	4
MR (Calc.)	24.356	5
(nD-d/2)	1.070	2
Dielectric	1.99	5
A -30 to	7.005	2
B 90 °C	1130.	2
C	234.	2
A* -30 to	1.29994	5
B* 53 °C	1057.09	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 90 to	7.43814	5
Bc t_c °C	1428.51	5
Cc	274.34	5
Cryos. A°		
consts. B°		
t_e °C	42.93	5

		Ref.
dt/dP °C/mm		
25°C	0.0588	5
BP	0.03796	4
t_e	0.03507	5
30 mm	0.5353	5
ΔHm cal/g		
ΔHv cal/g		
25°C	97.50	5
30 mm	107.81	5
BP	94.63	5
t_e	94.08	5
t_e (d, e)	94.08	5
ΔHv/T_e	20.27	5
d -30 to	102.21	5
e 43 °C	0.1894	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	212.	5
P_c mm	31519.	5
PV/RT		
25°C	0.9713	5
30 mm	1.0000	5
BP	0.9580	5
t_e	0.9555	5
t_c		
ΔHc kcal/m	732.45	2
ΔHf gas	31.00	2
ΔFf gas	47.47	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37144	2
400	0.45512	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0588	4
n 600 °K	0.0012	4
o	$-0.0_{6}51$	4
m' 700 to	0.1525	4
n' 1000 °K	$0.0_{3}91$	4
o'	$-0.0_{6}29$	4
Surface tension		
dynes/cm. 20°C	18.16	5
γ 30	17.05	5
40	15.95	5
Parachor [P]		
20°C		
30		
40		
Sugd.	207.2	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone	∞	
Carbon tet.	∞	
Benzene	∞	
Ether	∞	
n-Heptane	∞	
Ethanol	∞	
Water		
Water in		

$T_R = 0.75\,T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

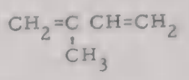
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 10

NAME	2-Methyl-1, 3-butadiene				STRUCTURAL FORMULA
	Isoprene				
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114		



$$CH_2{=}\underset{\displaystyle CH_3}{C}\ CH{=}CH_2$$

		Ref.
F.P. °C	-145.950	2
F.P. 100%		
B.P. °C		
760 mm	34.067	2
100	-14.21	2
30	-35.5	2
10	-51.6	2
1	-78.08	5
Pressure		
mm 25°C	550.0	5
t_e	824.2	5
Density		
g/ml 20°C	0.68095	2
d_4^t 25	0.67587	2
30	0.67074	4
a	0.7017	4
b	$-0.0_{3}95$	4
Ref. Index		
n_D 20°C	1.42194	2
25	1.41852	2
30	1.41524	4
"C"	0.8237	4
MR (Obs.)	25.416	2
MR (Calc.)	25.626	5
(nD-d/2)	1.08146	2
Dielectric	2.02	5
A -35 to	6.90334	2
B 84 °C	1080.996	2
C	234.67	2
A* -35 to	1.20523	5
B* 46 °C	1009.21	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 84 to	7.33735	5
Bc t_c °C	1374.92	5
Cc	275.34	5
Cryos. A°		
consts. B°		
t_e °C	36.44	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0492	5
BP	0.03817	4
t_e	0.03582	5
30 mm	0.5315	5
ΔHm cal/g		
ΔHv cal/g		
25°C	92.34	5
30 mm	103.42	5
BP	90.67	5
t_e	90.23	5
t_e (d, e)	90.24	5
ΔHv/T_e	19.85	5
d -35 to	96.92	5
e 36 °C	0.1834	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	202.	5
P_c mm	28860.	5
PV/RT		
25°C	0.9671	5
30 mm	1.0000	5
BP	0.9590	5
t_e	0.9568	5
t_c		
ΔHc kcal/m	719.55	2
ΔHf	11.80	2
ΔFf		
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.36997	2
400	0.46686	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	-0.0351	4
n 600 °K	0.0016	4
o	$-0.0_{6}95$	4
m' 700 to	0.1880	4
n' 1000 °K	$0.0_{3}88$	4
o'	$-0.0_{6}29$	4
Surface tension		
dynes/cm. 20°C	18.22	5
γ 30	17.08	5
40	15.95	5
Parachor [P]		
20°C		
30		
40		
Sugd.	207.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	224.8	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 11

NAME	1,2-Hexadiene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140	$CH_2=C=CH(CH_2)_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	76.	2
100	23.40	5
30	0.064	5
10	-17.70	5
1	-47.11	5
Pressure mm 25°C	107.7	5
t_e	940.1	5
Density g/ml 20°C	0.7149	2
d_4^t 25	0.7102	2
30	0.7055	4
a	0.7337	4
b	-0.0_392	4
Ref. Index		
n_D 20°C	1.4282	2
25	1.4252	2
30	1.4222	4
"C"	0.7955	4
MR (Obs.)	29.572	4
MR (Calc.)	28.974	5
(nD-d/2)	1.0708	2
Dielectric	2.04	5
A 0 to 123 °C	7.03380	4
B	1248.39	4
C	224.6	5
A* 0 to 93 °C	1.37445	5
B*	1171.46	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	82.84	5

		Ref.
dt/dP °C/mm		
25°C	0.2012	5
BP	0.04136	4
t_e	0.03497	5
30 mm	0.5853	5
ΔHm cal/g		
ΔHv cal/g		
25°C	98.35	5
30 mm	102.88	5
BP	89.22	5
t_e	88.03	5
t_e (d, e)	87.99	5
ΔHv/T_e	20.31	5
d 0 to 83 °C	102.89	5
e	0.1799	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9915	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9490	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.04	5
γ 30	19.92	5
40	18.84	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 12

NAME	1, cis-3-Hexadiene		STRUCTURAL FORMULA CH_2=CHCH=CHCH$_2$CH$_3$
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	73.	2
100	20.78	5
30	-2.37	5
10	-20.00	5
1	-49.18	5
Pressure mm 25°C	121.55	5
t_e	931.49	5
Density g/ml 20°C	0.705	2
d_4^t 25	0.700	2
30	0.6950	4
a	0.7250	4
b	-0.0_398	4
Ref. Index n_D 20°C	1.438	2
25	1.435	2
30	1.432	4
"C"	0.8241	4
MR (Obs.)	30.585	4
MR (Calc.)	30.244	5
(nD-d/2)	1.086	2
Dielectric	2.07	5
A -2 to	7.02864	4
B 118 °C	1236.47	4
C	225.1	5
A* -2 to	1.37294	5
B* 89 °C	1160.15	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	79.49	5

		Ref.
dt/dP °C/mm 25°C	0.1807	5
BP	0.04106	4
t_e	0.03498	5
30 mm	0.5808	5
ΔHm cal/g		
ΔHv cal/g 25°C	96.88	5
30 mm	101.84	5
BP	88.32	5
t_e	87.17	5
t_e (d, e)	87.16	5
ΔHv/T_e	20.30	5
d -2 to	101.41	5
e 79 °C	0.1793	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 25°C	0.9901	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9493	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	19.89	5
γ 30	18.76	5
40	17.65	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.l.%/wt. u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 13

NAME	1, trans-3-Hexadiene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140	$CH_2=CHCH=CHCH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	73.	2
100	20.78	5
30	-2.37	5
10	-20.00	5
1	-49.18	5
Pressure mm 25°C	121.55	5
t_e	931.49	5
Density g/ml 20°C	0.705	2
d_4^t 25	0.700	2
30	0.6950	4
a	0.7250	4
b	-0.0$_3$98	4
Ref. Index n_D 20°C	1.438	2
25	1.435	2
30	1.432	4
"C"	0.8241	4
MR (Obs.)	30.585	4
MR (Calc.)	30.244	5
(nD-d/2)	1.086	2
Dielectric	2.07	5
A -2 to	7.02864	4
B 118 °C	1236.47	4
C	225.1	5
A* -2 to	1.37294	5
B* 89 °C	1160.15	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	79.49	5

		Ref.
dt/dP °C/mm		
25°C	0.1807	5
BP	0.04106	4
t_e	0.03498	5
30 mm	0.5808	5
ΔHm cal/g		
ΔHv cal/g		
25°C	96.88	5
30 mm	101.84	5
BP	88.32	5
t_e	87.17	5
t_e (d, e)	87.16	5
ΔHv/T_e	20.30	5
d -2 to	101.41	5
e 79 °C	0.1793	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9901	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9493	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	19.89	5
γ 30	18.76	5
40	17.65	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in ⁺		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

⁺ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 14

NAME	1, cis-4-Hexadiene		STRUCTURAL FORMULA CH_2=CH CH_2CH=CH CH_3
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	65.	2
100	13.80	5
30	-8.88	5
10	-26.15	5
1	-54.71	5
Pressure		
mm 25°C	167.20	5
t_e	908.62	5
Density		
g/ml 20°C	0.700	2
d_4^t 25	0.695	2
30	0.690	4
a	0.7200	4
b	-0.0_397	4
Ref. Index		
n_D 20°C	1.415	2
25	1.412	2
30	1.409	4
"C"	0.7888	4
MR (Obs.)	29.385	4
MR (Calc.)	28.974	5
(nD-d/2)	1.065	2
Dielectric	2.00	5
A -9 to	7.01701	4
B 108 °C	1206.11	4
C	226.6	5
A* -9 to	1.37095	5
B* 81 °C	1131.31	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	70.57	5

		Ref
dt/dP		
°C/mm		
25°C	0.1363	5
BP	0.04028	4
t_e	0.03499	5
30 mm	0.5689	5
ΔHm cal/g		
ΔHv cal/g		
25°C	92.97	5
30 mm	99.03	5
BP	85.91	5
t_e	84.95	5
t_e (d, e)	84.93	5
ΔHv/T_e	20.30	5
d -9 to	97.45	5
e 71 °C	0.1774	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9860	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9500	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	19.31	5
γ 30	18.19	5
40	17.10	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 15

NAME	1, trans-4-Hexadiene		STRUCTURAL FORMULA
			CH_2=CHCH$_2$CH=CHCH$_3$
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	65.	2
100	13.80	5
30	-8.88	5
10	-26.15	5
1	-54.71	5
Pressure mm 25°C	167.20	5
t_e	909.69	5
Density g/ml 20°C	0.700	2
d_4^t 25	0.695	2
30	0.6900	4
a	0.7200	4
b	-0.0_397	4
Ref. Index n_D 20°C	1.415	2
25	1.412	2
30	1.409	4
"C"	0.7888	4
MR (Obs.)	29.385	4
MR (Calc.)	28.974	5
(nD-d/2)	1.065	2
Dielectric	2.00	5
A -9 to	7.01701	4
B 108 °C	1206.11	4
C	226.6	5
A* -9 to	1.36916	5
B* 81 °C	1130.92	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	70.61	5

		Ref.
dt/dP °C/mm		
25°C	0.1363	5
BP	0.04028	4
t_e	0.03496	5
30 mm	0.5689	5
ΔHm cal/g		
ΔHv cal/g		
25°C	93.02	5
30 mm	99.03	5
BP	86.00	5
t_e	85.03	5
t_e (d, e)	85.02	5
ΔHv/T_e	20.31	5
d -9 to	97.46	5
e 71 °C	0.1762	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9866	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9510	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	19.31	5
30	18.19	5
40	17.10	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L. l. %/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 16

NAME	1,5-Hexadiene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}		Molecular Weight 82.140	$CH_2=CH(CH_2)_2CH=CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	59.46	2
100	8.95	5
30	-13.43	5
10	-30.44	5
1	-58.59	5
Pressure		
mm 25°C	208.01	5
t_e	893.84	5
Density		
g/ml 20°C	0.6923	2
d_4^t 25	0.6878	2
30	0.6833	4
a	0.7104	4
b	-0.0_386	4
Ref. Index		
n_D 20°C	1.4042	2
25	1.4010	2
30	1.3978	4
"C"	0.7780	4
MR (Obs.)	29.030	4
MR (Calc.)	28.974	5
(nD-d/2)	1.0580	2
Dielectric	1.97	5
A -13 to	7.00740	4
B 102 °C	1184.99	4
C	227.7	5
A* -13 to	1.36628	5
B* 74 °C	1110.81	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	64.45	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1125	5
BP	0.03976	4
t_e	0.03499	5
30 mm	0.5609	5
ΔHm cal/g		
ΔHv cal/g		
25°C	90.27	5
30 mm	97.02	5
BP	84.29	5
t_e	83.44	5
t_e (d, e)	83.42	5
$\Delta Hv/T_e$	20.30	5
d -13 to	94.68	5
e 64 °C	0.1746	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9834	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9515	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	18.46	5
γ 30	17.47	5
40	16.50	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 17

NAME	2, 3-Hexadiene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140	$CH_3CH{=}C{=}CHCH_2CH_3$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	68.0	2
100	16.42	5
30	-6.45	5
10	-23.85	5
1	-52.65	5
Pressure		
mm 25°C	148.45	5
t_e	918.28	5
Density		
g/ml 20°C	0.680	2
d_4^t 25	0.675	2
30	0.670	4
a	0.7000	4
b	-0.0_397	4
Ref. Index		
n_D 20°C	1.395	2
25	1.392	2
30	1.389	4
"C"	0.7750	4
MR (Obs.)	28.95	4
MR (Calc.)	28.974	5
(nD-d/2)	1.055	2
Dielectric	1.95	5
A -6 to	7.02235	4
B 110 °C	1218.02	4
C	226.1	5
A* -6 to	1.37077	5
B* 84 °C	1142.22	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	73.95	5

		Ref.
dt/dP °C/mm		
25°C	0.1514	5
BP	0.04057	4
t_e	0.03495	5
30 mm	0.5734	5
ΔHm cal/g		
ΔHv cal/g		
25°C	94.47	5
30 mm	100.07	5
BP	86.90	5
t_e	85.86	5
t_e (d, e)	85.85	5
ΔHv/T_e	20.32	5
d -6 to	98.93	5
e 74 °C	0.1769	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9881	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9507	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	17.20	5
γ 30	16.18	5
40	15.19	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 18

NAME	cis-2, cis-4-Hexadiene			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140	$CH_3CH=CHCH=CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	80.	2
100	26.89	5
30	3.32	5
10	-14.62	5
1	-44.34	5
Pressure mm 25°C	91.55	5
t_e	953.22	5
Density g/ml 20°C	0.720	2
d_4^t 25	0.715	2
30	0.710	4
a	0.7400	4
b	-0.0_398	4
Ref. Index		
n_D 20°C	1.450	2
25	1.447	2
30	1.444	4
"C"	0.8277	4
MR (Obs.)	30.658	4
MR (Calc.)	30.244	5
(nD-d/2)	1.090	2
Dielectric	2.10	5
A 3 to	7.03864	4
B 128 °C	1263.15	4
C	223.8	5
A* 3 to	1.37195	5
B* 97 °C	1184.88	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A° B°		
t_e °C	87.36	5

		Ref.
dt/dP °C/mm		
25°C	0.2325	5
BP	0.04175	4
t_e	0.03492	5
30 mm	0.5912	5
ΔHm cal/g		
ΔHv cal/g		
25°C	100.38	5
30 mm	104.30	5
BP	90.57	5
t_e	89.28	5
t_e (d, e)	89.25	5
$\Delta Hv/T_e$	20.34	5
d 3 to	104.90	5
e 87 °C	0.1791	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9937	5
30 mm	1.0000	5
BP	0.9565	5
t_e	0.9502	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. 20°C	21.65	5
γ 30	20.45	5
40	19.28	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt. u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 19

NAME	cis-2, trans-4-Hexadiene				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}		Molecular Weight 82.140	$CH_3CH{=}CHCH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	80.	2
100	26.89	5
30	3.32	5
10	-14.62	5
1	-44.34	5
Pressure mm 25°C	91.55	5
t_e	950.95	5
Density g/ml 20°C	0.720	2
d_4^t 25	0.715	2
30	0.710	4
a	0.7400	4
b	-0.0_398	4
Ref. Index n_D 20°C	1.450	2
25	1.447	2
30	1.444	4
"C"	0.8277	4
MR (Obs.)	30.658	4
MR (Calc.)	30.244	5
(nD-d/2)	1.090	2
Dielectric	2.10	5
A 3 to 127 °C	7.03864	4
B	1263.15	4
C	223.8	5
A* 3 to 97 °C	1.37555	5
B*	1185.70	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	87.28	5

		Ref.
dt/dP °C/mm 25°C	0.2325	5
BP	0.04175	4
t_e	0.03498	5
30 mm	0.5912	5
ΔHm cal/g		
ΔHv cal/g 25°C	100.31	5
30 mm	104.30	5
BP	90.38	5
t_e	89.10	5
t_e (d, e)	89.06	5
ΔHv/T_e	20.30	5
d 3 to	104.90	5
e 87 °C	0.1816	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 25°C	0.9930	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9481	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.65	5
30	20.45	5
40	19.28	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 20

NAME	trans-2, trans-4-Hexadiene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140
			$CH_3CH{=}CHCH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	80.	2
100	26.89	5
30	3.32	5
10	-14.62	5
1	-44.34	5
Pressure		
mm 25°C	91.55	5
t_e	950.95	5
Density		
g/ml 20°C	0.720	2
d_4^t 25	0.715	2
30	0.710	4
a	0.7400	4
b	-0.0_398	4
Ref. Index		
n_D 20°C	1.450	2
25	1.447	2
30	1.444	4
"C"	0.8277	4
MR (Obs.)	30.658	4
MR (Calc.)	30.244	5
(nD-d/2)	1.090	2
Dielectric	2.10	5
A 3 to	7.03864	4
B 127 °C	1263.15	4
C	223.8	5
A* 3 to	1.37555	5
B* 97 °C	1185.70	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	87.28	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2325	5
BP	0.04175	4
t_e	0.03498	5
30 mm	0.5912	5
ΔHm cal/g		
ΔHv cal/g		
25°C	100.31	5
30 mm	104.30	5
BP	90.38	5
t_e	89.10	5
t_e (d, e)	89.06	5
ΔHv/T_e	20.30	5
d 3 to	104.90	5
e 87 °C	0.1816	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9930	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9481	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	21.65	5
γ 30	20.45	5
40	19.28	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

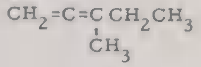
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 21

NAME	3-Methyl-1,2-pentadiene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140


$CH_2{=}C{=}\underset{CH_3}{C}\,CH_2CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	70.	2
100	18.17	5
30	-4.82	5
10	-22.31	5
1	-51.26	5
Pressure mm 25°C	137.1	5
t_e	922.4	5
Density g/ml 20°C	0.715	2
d_4^t 25	0.710	2
30	0.705	4
a	0.7350	4
b	-0.0_398	4
Ref. Index n_D 20°C	1.425	2
25	1.422	2
30	1.419	4
"C"	0.7898	4
MR (Obs.)	29.375	4
MR (Calc.)	28.974	5
(nD-d/2)	1.068	2
Dielectric	2.03	5
A -5 to	7.02488	4
B 116 °C	1225.40	4
C	225.7	5
A* -5 to	1.37362	5
B* 86 °C	1149.83	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	76.12	5

		Ref.
dt/dP °C/mm		
25°C	0.1625	5
BP	0.04077	4
t_e	0.0350	5
30 mm	0.5764	5
ΔHm cal/g		
ΔHv cal/g		
25°C	95.38	5
30 mm	100.78	5
BP	87.38	5
t_e	86.30	5
t_e (d, e)	86.28	5
$\Delta Hv/T_e$	20.29	5
d -5 to	99.91	5
e 76 °C	0.1791	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 25°C	0.9884	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9490	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.03	5
γ 30	19.85	5
40	18.69	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

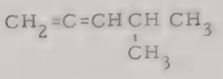
PURIFICATION: API

LITERATURE REFERENCES:

No. 22

NAME	4-Methyl-1, 2-pentadiene
Mole % Pur.	
Ref.	
Molecular Formula	C_6H_{10}
Molecular Weight	82.140

STRUCTURAL FORMULA



$CH_2{=}C{=}CHCH(CH_3)CH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	70.	2
100	18.17	5
30	-4.82	5
10	-22.31	5
1	-51.26	5
Pressure		
mm 25°C	137.08	5
t_e	922.91	5
Density		
g/ml 20°C	0.708	2
d_4^t 25	0.703	2
30	0.698	4
a	0.7280	4
b	-0.0_398	4
Ref. Index		
n_D 20°C	1.424	2
25	1.421	2
30	1.418	4
"C"	0.7959	4
MR (Obs.)	29.604	4
MR (Calc.)	28.974	5
(nD-d/2)	1.070	2
Dielectric	2.03	5
A -5 to	7.02488	4
B 115 °C	1225.40	4
C	225.7	5
A* -5 to	1.37272	5
B* 86 °C	1149.63	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	76.14	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1625	5
BP	0.04077	4
t_e	0.03498	5
30 mm	0.5764	5
ΔHm cal/g		
ΔHv cal/g		
25°C	95.40	5
30 mm	100.78	5
BP	87.42	5
t_e	86.35	5
t_e (d, e)	86.32	5
$\Delta Hv/T_e$	20.30	5
d -5 to	99.92	5
e 76 °C	0.1785	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9886	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9495	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	20.22	5
γ 30	19.07	5
40	17.95	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

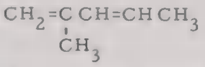
PURIFICATION: API

LITERATURE REFERENCES:

No. 23

NAME	2-Methyl-1, cis-3-pentadiene		
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

STRUCTURAL FORMULA



$CH_2{=}\underset{CH_3}{C}CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	76.	2
100	23.40	5
30	0.64	5
10	-17.70	5
1	-47.11	5
Pressure mm 25°C	107.71	5
t_e	940.07	5
Density g/ml 20°C	0.719	2
d^t_4 25	0.714	2
30	0.709	4
a	0.7390	4
b	$-0.0_3 98$	4
Ref. Index n_D 20°C	1.446	2
25	1.443	2
30	1.440	4
"C"	0.8219	4
MR (Obs.)	30.465	4
MR (Calc.)	30.244	5
(nD-d/2)	1.087	2
Dielectric	2.09	5
A 1 to 123 °C	7.03380	4
B	1248.39	4
C	224.6	5
A* 1 to 93 °C	1.37445	5
B*	1171.46	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to t_c °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	82.84	5

		Ref.
dt/dP °C/mm		
25°C	0.2012	5
BP	0.04136	4
t_e	0.03497	5
30 mm	0.5853	5
ΔHm cal/g		
ΔHv cal/g		
25°C	98.35	5
30 mm	102.88	5
BP	89.22	5
t_e	88.03	5
t_e (d, e)	87.99	5
$\Delta Hv/T_e$	20.31	5
d 1 to 83 °C	102.89	5
e	0.1799	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9915	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9490	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.52	5
30	20.32	5
40	19.16	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.l.%/wt. u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

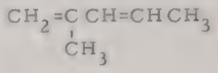
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 24

NAME	2-Methyl-1, trans-3-pentadiene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140



$CH_2{=}C(CH_3)CH{=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	76.	2
100	23.40	5
30	0.06	5
10	-17.70	5
1	-47.11	5
Pressure mm 25°C	107.71	5
t_e	939.51	5
Density g/ml 20°C	0.719	2
d_4^t 25	0.714	2
30	0.709	4
a	0.7390	4
b	-0.0_398	4
Ref. Index n_D 20°C	1.446	2
25	1.443	2
30	1.440	4
"C"	0.8219	4
MR (Obs.)	30.465	4
MR (Calc.)	30.244	5
(nD-d/2)	1.087	2
Dielectric	2.09	5
A 0 to 123°C	7.03380	4
B	1248.39	4
C	224.6	5
A* 0 to 93°C	1.37535	5
B*	1171.66	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	82.82	5

		Ref.
dt/dP °C/mm		
25°C	0.2012	5
BP	0.04136	4
t_e	0.03499	5
30 mm	0.5853	5
ΔHm cal/g		
ΔHv cal/g		
25°C	98.33	5
30 mm	102.88	5
BP	89.17	5
t_e	87.98	5
t_e (d, e)	87.94	5
$\Delta Hv/T_e$	20.30	5
d 0 to 83°C	102.89	5
e	0.1805	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9913	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9485	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	21.52	5
30	20.32	5
40	19.16	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

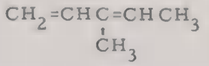
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 25

NAME	3-Methyl-1, cis-3-pentadiene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140



$$CH_2{=}CH\underset{\displaystyle CH_3}{\underset{|}{C}}{=}CH\,CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	77.	2
100	24.27	5
30	0.88	5
10	-16.93	5
1	-46.42	5
Pressure		
mm 25°C	103.43	5
t_e	942.37	5
Density		
g/ml 20°C	0.735	2
d^t_4 25	0.730	2
30	0.725	4
a	0.7550	4
b	-0.0_398	4
Ref. Index		
n_D 20°C	1.452	2
25	1.449	2
30	1.446	4
"C"	0.8142	4
MR (Obs.)	30.148	4
MR (Calc.)	30.244	5
(nD-d/2)	1.085	2
Dielectric	2.11	5
A 1 to	7.03502	4
B 126 °C	1252.08	4
C	224.4	5
A* 1 to	1.37541	5
B* 94 °C	1175.17	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	83.93	5

		Ref.
dt/dP		
°C/mm		
25°C	0.2086	5
BP	0.04145	4
t_e	0.03499	5
30 mm	0.5868	5
ΔHm cal/g		
ΔHv cal/g		
25°C	98.83	5
30 mm	103.24	5
BP	89.50	5
t_e	88.26	5
t_e (d, e)	88.25	5
ΔHv/T_e	20.30	5
d 1 to	103.39	5
e 84 °C	0.1804	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9917	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9484	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	23.51	5
γ 30	22.23	5
40	20.98	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

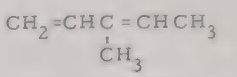
PURIFICATION: API

LITERATURE REFERENCES:

No. 26

NAME	3-Methyl-1, trans-3-pentadiene		
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

STRUCTURAL FORMULA



$CH_2{=}CHC(CH_3){=}CHCH_3$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	77.	2
100	24.27	5
30	0.88	5
10	-16.93	5
1	-46.42	5
Pressure mm 25°C	103.43	5
t_e	942.37	5
Density g/ml 20°C	0.735	2
d_4^t 25	0.730	2
30	0.725	4
a	0.7550	4
b	$-0.0_{3}98$	4
Ref. Index n_D 20°C	1.452	2
25	1.449	2
30	1.446	4
"C"	0.8142	4
MR (Obs.)	30.148	4
MR (Calc.)	30.244	5
(nD-d/2)	1.085	2
Dielectric	2.11	5
A 1 to 126 °C	7.03502	4
B	1252.08	4
C	224.4	5
A* 1 to 94 °C	1.37541	5
B*	1175.17	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to °C		
Bc t_c		
Cc		
Cryos. consts. A°		
B°		
t_e °C	83.93	5

		Ref.
dt/dP °C/mm		
25°C	0.2086	5
BP	0.04145	4
t_e	0.03499	5
30 mm	0.5868	5
ΔHm cal/g		
ΔHv cal/g		
25°C	98.83	5
30 mm	103.24	5
BP	89.50	5
t_e	88.26	5
t_e (d, e)	88.25	5
$\Delta Hv/T_e$	20.30	5
d 1 to 84 °C	103.39	5
e	0.1804	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9917	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9484	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. 20°C	23.51	5
γ 30	22.23	5
40	20.98	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt. u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

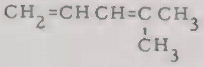
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 27

NAME	4-Methyl-1, 3-pentadiene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140



$$CH_2{=}CH\,CH{=}\underset{\displaystyle CH_3}{C}\,CH_3$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	76.3	2
100	23.66	5
30	0.31	5
10	-17.47	5
1	-46.91	5
Pressure mm 25°C	106.42	5
t_e	940.37	5
Density g/ml 20°C	0.719	2
d_4^t 25	0.714	2
30	0.709	4
a	0.7390	4
b	-0.0_398	4
Ref. Index n_D 20°C	1.451	2
25	1.448	2
30	1.445	4
"C"	0.8306	4
MR (Obs.)	30.760	4
MR (Calc.)	30.244	5
(nD-d/2)	1.092	2
Dielectric	2.10	5
A 0 to	7.03324	4
B 123 °C	1249.05	4
C	224.5	5
A* 0 to	1.37449	5
B* 93 °C	1172.30	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	83.15	5

		Ref.
dt/dP °C/mm		
25°C	0.2034	5
BP	0.04139	4
t_e	0.03499	5
30 mm	0.5857	5
ΔHm cal/g		
ΔHv cal/g		
25°C	98.47	5
30 mm	102.99	5
BP	89.26	5
t_e	88.06	5
t_e (d, e)	88.02	5
$\Delta Hv/T_e$	20.30	5
d 0 to	103.04	5
e 83 °C	0.1806	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9914	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9485	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	21.52	5
γ 30	20.32	5
40	19.16	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

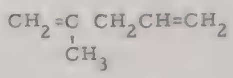
PURIFICATION: API

LITERATURE REFERENCES:

No. 28

NAME	2-Methyl-1, 4-pentadiene		
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

STRUCTURAL FORMULA



$CH_2{=}\underset{CH_3}{C}\ CH_2CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C 760 mm	56.	2
100	5.95	5
30	-16.22	5
10	-33.07	5
1	-60.96	5
Pressure mm 25°C	237.83	5
t_e	884.46	5
Density g/ml 20°C	0.694	2
d_4^t 25	0.689	2
30	0.684	4
a	0.7141	4
b	-0.0_396	4
Ref. Index n_D 20°C	1.405	2
25	1.402	2
30	1.399	4
"C"	0.7775	4
MR (Obs.)	29.009	4
MR (Calc.)	28.974	5
(nD-d/2)	1.058	2
Dielectric	1.97	5
A -16 to 98 °C	7.00507	4
B	1172.94	4
C	228.4	5
A* -16 to 71 °C	1.36730	5
B*	1099.20	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac t_c to °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	60.61	5

		Ref.
dt/dP °C/mm 25°C	0.1000	5
BP	0.03940	4
t_e	0.03496	5
30 mm	0.5557	5
ΔHm cal/g		
ΔHv cal/g 25°C	88.68	5
30 mm	95.84	5
BP	83.34	5
t_e	82.56	5
t_e (d, e)	82.54	5
ΔHv/T_e	20.31	5
d -16 to 61 °C	93.04	5
e	0.1731	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 25°C	0.9816	5
30 mm	1.0000	5
BP	0.9565	5
t_e	0.9523	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	18.63	5
30	17.53	5
40	16.45	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.l.%/wt. u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

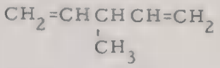
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 29

NAME	3-Methyl-1, 4-pentadiene			**STRUCTURAL FORMULA**
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140	



$CH_2{=}CH\underset{\displaystyle CH_3}{CH}CH{=}CH_2$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	55.	2
100	5.08	5
30	-17.02	5
10	-33.83	5
1	-61.64	5
Pressure		
mm 25°C	247.21	5
t_e	881.08	5
Density		
g/ml 20°C	0.695	2
d_4^t 25	0.690	2
30	0.685	4
a	0.7151	4
b	-0.0_396	4
Ref. Index		
n_D 20°C	1.405	2
25	1.402	2
30	1.399	4
"C"	0.7764	4
MR (Obs.)	28.967	4
MR (Calc.)	28.974	5
(nD-d/2)	1.058	2
Dielectric	1.97	5
A -17 to	7.00219	4
B 97 °C	1168.41	4
C	228.5	5
A* -17 to	1.36668	5
B* 69 °C	1095.11	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	59.49	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0966	5
BP	0.03930	4
t_e	0.03498	5
30 mm	0.5541	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.17	5
30 mm	95.51	5
BP	83.00	5
t_e	82.24	5
t_e (d, e)	82.23	5
$\Delta Hv/T_e$	20.30	5
d -17 to	92.55	5
e 59 °C	0.1736	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9806	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9519	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	18.73	5
γ 30	17.63	5
40	16.54	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

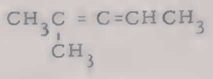
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 30

NAME	2-Methyl-2, 3-pentadiene		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140



$$\begin{array}{l} CH_3C = C{=}CHCH_3 \\ \quad\ \ |\\ \quad CH_3 \end{array}$$

		Ref.
F. P. °C		
F. P. 100%		
B. P. °C		
760 mm	72.	2
100	19.91	5
30	-3.19	5
10	-20.77	5
1	-49.87	5
Pressure		
mm 25°C	126.53	5
t_e	928.63	5
Density		
g/ml 20°C	0.711	2
d_4^t 25	0.706	2
30	0.701	4
a	0.7310	4
b	-0.0_398	4
Ref. Index		
n_D 20°C	1.425	2
25	1.422	2
30	1.419	4
"C"	0.7943	4
MR (Obs.)	29.540	4
MR (Calc.)	28.974	5
(nD-d/2)	1.070	2
Dielectric	2.03	5
A -3 to	7.02740	4
B 117 °C	1232.78	4
C	225.3	5
A* -3 to	1.37287	5
B* 88 °C	1156.64	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	78.37	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1744	5
BP	0.04097	4
t_e	0.03498	5
30 mm	0.5793	5
ΔHm cal/g		
ΔHv cal/g		
25°C	96.39	5
30 mm	101.48	5
BP	88.01	5
t_e	86.90	5
t_e (d, e)	86.87	5
ΔHv/T_e	20.30	5
d -3 to	100.91	5
e 78 °C	0.1792	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9896	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9494	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	20.57	5
γ 30	19.41	5
40	18.28	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

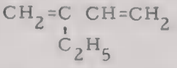
PURIFICATION: API

LITERATURE REFERENCES:

No. 31

NAME	2-Ethyl-1, 3-butadiene
Mole % Pur.	
Ref.	
Molecular Formula	C_6H_{10}
Molecular Weight	82.140

STRUCTURAL FORMULA



$$CH_2{=}\underset{\displaystyle C_2H_5}{C}\ CH{=}CH_2$$

		Ref.
F.P. °C		
F.P. 100%		
B.P. °C		
760 mm	75.	2
100	22.53	5
30	-0.74	5
10	-18.46	5
1	-47.79	5
Pressure mm 25°C	112.14	5
t_e	936.65	5
Density g/ml 20°C	0.717	2
d_4^t 25	0.712	2
30	0.707	4
a	0.7370	4
b	-0.0_398	4
Ref. Index n_D 20°C	1.445	2
25	1.442	2
30	1.439	4
"C"	0.8225	4
MR (Obs.)	30.490	4
MR (Calc.)	30.244	5
(nD-d/2)	1.086	2
Dielectric	2.09	5
A 0 to 121 °C	7.03112	4
B	1243.85	4
C	224.7	5
A* 0 to 92 °C	1.37396	5
B*	1167.37	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to t_c °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	81.70	5

		Ref.
dt/dP °C/mm		
25°C	0.1941	5
BP	0.04126	4
t_e	0.03499	5
30 mm	0.5837	5
ΔHm cal/g		
ΔHv cal/g		
25°C	97.84	5
30 mm	102.55	5
BP	88.88	5
t_e	87.70	5
t_e (d, e)	87.67	5
ΔHv/T_e	20.30	5
d 0 to 82 °C	102.41	5
e	0.1805	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9908	5
30 mm	1.0000	5
BP	0.9545	5
t_e	0.9486	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v) to °C		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	21.28	5
30	20.09	5
40	18.93	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.2	5
Exp. L.1.%/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

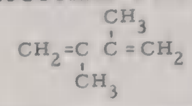
SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 32

NAME	2, 3-Dimethyl-1, 3-butadiene	STRUCTURAL FORMULA


$$CH_2{=}C\overset{\displaystyle CH_3}{|}\quad \underset{\displaystyle CH_3}{C}{=}CH_2$$

Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

		Ref.
F.P. °C	-76.005	2
F.P. 100%		
B.P. °C		
760 mm	68.78	2
100	17.11	5
30	-5.79	5
10	-23.23	5
1	-52.08	5
Pressure		
mm 25°C	143.84	5
t_e	920.51	5
Density		
g/ml 20°C	0.7267	2
d_4^t 25	0.7222	2
30	0.7177	4
a	0.7447	4
b	-0.0_387	4
Ref. Index		
n_D 20°C	1.4394	2
25	1.4362	2
30	1.4330	4
"C"	0.8019	4
MR (Obs.)	29.754	4
MR (Calc.)	30.244	5
(nD-d/2)	1.0760	2
Dielectric	2.07	5
A -6 to	7.02388	4
B 116°C	1220.88	4
C	225.9	5
A* -6to	1.37143	5
B* 85°C	1144.96	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	74.82	5

		Ref.
dt/dP		
°C/mm		
25°C	0.1557	5
BP	0.04064	4
t_e	0.03494	5
30 mm	0.5745	5
ΔHm cal/g		
ΔHv cal/g		
25°C	94.89	5
30 mm	100.38	5
BP	87.18	5
t_e	86.14	5
t_e (d, e)	86.11	5
ΔHv/T_e	20.33	5
d -6 to	99.35	5
e 75 °C	0.1770	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9885	5
30 mm	1.0000	5
BP	0.9560	5
t_e	0.9507	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	22.44	5
γ 30	21.32	5
40	20.21	5
Parachor [P]		
20°C		
30		
40		
Sugd.	246.2	5
Exp. L. 1. %/wt.		
u.		
Dispersion	225.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 1

NAME	Ethyne Acetylene			STRUCTURAL FORMULA CH≡CH
Mole % Pur.	Ref.	Molecular Formula C_2H_2	Molecular Weight 26.036	

		Ref.
F.P. °C	-80.8≠	2
F.P. 100%		
B.P. °C		
760 mm	-84.0#	2
100	-108.3	2
30	-120.1	2
10	-129.5	2
1	-153.3	5
Pressure mm 25°C		
t_e	494.3	5
Density g/ml 20°C		
d_4^t 25		
30		
a		
b		
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	9.434	5
(nD-d/2)		
Dielectric		
A -81 to	7.0949	2
B -60 °C	709.1	2
C	253.2	2
A* -81 to	1.60062	5
B* -60 °C	676.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	-89.6	5

		Ref.
dt/dP °C/mm		
25°C		
BP	0.018	2
t_e	0.02582	5
30 mm	0.3036	5
ΔHm cal/g		
ΔHv cal/g(a)		
25°C		
30 mm	196.37	5
BP	193.46	5
t_e	195.04	5
t_e (d, e)		
ΔHv/T_e		
d to		
e °C		
d' to		
e' °C		
d_c g/ml	0.231	2
v_c ml/g	4.329	2
t_c °C	36.3	2
P_c mm	46816.	2
PV/RT 25°C		
30 mm	1.0000	5
BP	0.9700	5
t_e	0.9778	5
t_c	0.273	5
ΔHc kcal/m	300.10	2
ΔHf	54.194	2
ΔFf	50.000	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. 300°K	10.532	2
400	11.973	2
c_p vap. 300°K	0.40452	2
400	0.45986	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.1355	4
n 600 °K	0.0012	4
o	$-0.0_{6}86$	4
m' 700 to	0.3444	4
n' 1000 °K	$0.0_{3}37$	4
o'	$-0.0_{7}98$	4
Surface tension dynes/cm. 20°C		
γ 30		
40		
Parachor [P] 20°C		
30		
40		
Sugd.	90.4	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		
A^s	9.1363	2
B^s	1230.3	2
C^s	280.7	2
A^{*s}	3.1388	5
B^{*s}	1160.71	5

≠ Saturation press (triple pt.) # Sublimation point + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE:

PURIFICATION:

LITERATURE REFERENCES:

(a) Heat of sublimation

No. 2

NAME	Propyne Methylacetylene		STRUCTURAL FORMULA $CH_3C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula C_3H_4	Molecular Weight 40.062

		Ref.
F.P. °C	-102.7	2
F.P. 100%		
B.P. °C		
760 mm	-23.22	2
100	-61.1	2
30	-78.2	2
10	-90.2	2
1	-110.6	5
Pressure mm 25°C		
t_e	666.5	5
Density g/ml 20°C		
d_4^t 25		
30		
a		
b		
Ref. Index n_D 20°C		
25		
30		
"C"		
MR (Obs.)		
MR (Calc.)	14.052	5
(nD-d/2)		
Dielectric		
A -78 to	6.77915	2
B 24 °C	801.91	2
C	228.93	2
A* -78 to	0.89250	5
B* -16 °C	738.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	-26.2	5

		Ref.
dt/dP °C/mm		
25°C		
BP	0.0301	2
t_e	0.0334	5
30 mm	0.413	5
ΔHm cal/g		
ΔHv cal/g		
25°C		
30 mm	152.2	5
BP	131.0	5
t_e	131.9	5
t_e (d, e)	132.15	5
$\Delta Hv/T_e$	21.39	5
d -78 to	122.05	5
e -30 °C	0.3856	5
d' to		
e' °C		
d_c g/ml	0.229	5
v_c ml/g	4.367	5
t_c °C	121.6	2
P_c mm	38000.	5
PV/RT		
25°C		
30 mm	1.0000	5
BP	0.9700	5
t_e	0.9699	5
t_c	0.270	5
ΔHc kcal/m	442.07	2
ΔHf	44.319	2
ΔFf	46.313	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.36319	2
400	0.43258	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0996	4
n 600 °K	0.0010	4
o	-0.0_646	4
m' 700 to	0.1830	4
n' 1000 °K	0.0_374	4
o'	-0.0_624	4
Surface tension dynes/cm. 20°C		
γ 30		
40		
Parachor [P] 20°C		
30		
40		
Sugd.	129.4	5
Exp. L. l. %/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 3

NAME	1-Butyne Ethylacetylene		STRUCTURAL FORMULA $C_2H_5C\equiv CH$
Mole % Pur.	Ref.	Molecular Formula C_4H_6	Molecular Weight 54.088

		Ref.
F.P. °C	-125.720	2
F.P. 100%		
B.P. °C 760 mm	8.09	2
100	-34.56	2
30	-53.42	2
10	-67.75	2
1	-91.42	5
Pressure mm 25°C		
t_e	758.4	5
Density g/ml 20°C	0.65≠	2
d_4^t 25	0.65≠	2
30	0.65	4
a	0.6511	5
b	0.0_3129	5
Ref. Index n_D 20°C 25 30		
"C"		
MR (Obs.) MR (Calc.) (nD-d/2)		
Dielectric		
A -67 to	6.97497	2
B 63 °C	986.46	2
C	232.85	2
A* -60 to	1.20441	5
B* 18 °C	920.64	5
K c t_k to t_x °C		
A' to B' °C C'		
A'* to B'* °C		
Ac to Bc t_c °C Cc		
Cryos. consts. A° B°		
t_e °C		

		Ref.
dt/dP °C/mm		
25°C	0.0208	5
BP	0.0336	5
t_e	0.0337	5
30 mm	0.4724	5
ΔHm cal/g		
ΔHv cal/g 25°C	105.61	5
30 mm	125.13	5
BP	109.82	5
t_e	109.82	5
t_e (d, e)		
ΔHv/T_e	21.12	5
d -60 to	111.83	5
e 30 °C	0.2489	5
d' to e' °C		
d_c g/ml v_c ml/g t_c °C P_c mm		
PV/RT 25°C 30 mm BP t_e t_c		
ΔHc kcal/m	589.08	2
ΔHf	39.48	2
ΔFf	48.30	2
Viscosity centistokes η °C		
B^v to A^v °C (B^v) (A^v)		
c_p liq. °K c_p vap. °K c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension dynes/cm. γ 20°C	16.40	5
30	16.25	5
40	16.03	5
Parachor [P] 20°C 30 40 Sugd.		
Exp. L.1.%/wt. u. Dispersion		
Flash Point °C Fire Point		
M. Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

$T_R = 0.75\ T_c$ ≠ at saturation pressure + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE:

PURIFICATION:

LITERATURE REFERENCES:

No. 4

NAME	2-Butyne Dimethylacetylene		STRUCTURAL FORMULA $CH_3C{\equiv}C\ CH_3$
Mole % Pur.	Ref.	Molecular Formula C_4H_6	Molecular Weight 54.088

		Ref.
F.P. °C	-32.260	2
F.P. 100%		
B.P. °C		
760 mm	26.97	2
100	-18.7	2
30	-38.98	2
10	-54.46	2
1	-80.0	5
Pressure mm 25°C	706.6	5
t_e	808.6	5
Density g/ml 20°C	0.6910	2
d_4^t 25	0.6856	2
30	0.6801	4
a	0.7130	4
b	-0.00101	4
Ref. Index n_D 20°C	1.3921	2
25	1.3893	2
30	1.3865	4
"C"	0.7574	4
MR (Obs.)	18.64	2
MR (Calc.)	18.670	5
(nD-d/2)	1.0466	2
Dielectric		
A -32 to	7.07871	2
B 91°C	1104.72	2
C	236.19	2
A* -32 to	1.28120	5
B* 39°C	1032.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 91 to	7.34794	5
Bc t_c °C	1354.8	5
Cc	277.8	5
Cryos. A°		
consts. B°		
t_e °C	28.65	5

		Ref.
dt/dP °C/mm		
25°C	0.0379	5
BP	0.0358	5
t_e	0.0341	5
30 mm	0.5097	5
ΔHm cal/g		
ΔHv cal/g		
25°C	117.43	5
30 mm	131.8	5
BP	117.03	5
t_e	116.5	5
t_e (d, e)	116.65	5
$\Delta Hv/T_e$	20.87	5
d -40 to	123.07	5
e 35 °C	0.224	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	212.	5
P_c mm	38478.	5
PV/RT		
25°C	0.9653	5
30 mm	1.0000	5
BP	0.9650	5
t_e	0.9628	5
t_c		
ΔHc kcal/m	584.57	2
ΔHf	34.97	2
ΔFf	44.32	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °C		
c_p vap. 300°K	0.34573	2
400	0.41821	2
c_v vap.		

		Ref.
f to		
g °C		
h		
f' to		
g' °C		
h'		
m 300 to	0.1082	4
n 600 °K	0.0_384	4
o	-0.0_617	4
m' 700 to	0.1020	4
n' 1000 °K	0.0_393	4
o'	-0.0_630	4
Surface tension dynes/cm. γ 20°C	21.19	5
30	19.80	5
40	18.42	5
Parachor [P] 20°C		
30		
40		
Sugd.	168.4	5
Exp. L.l.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$ ≠ solid + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 5

NAME	1-Pentyne		STRUCTURAL FORMULA $CH{\equiv}C(CH_2)_2CH_3$
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114

		Ref.
F. P. °C	-105.7	2
F. P. 100%		
B. P. °C		
760 mm	40.18	2
100	-7.	2
30	-28.	2
10	-44.	2
1	-70.	5
Pressure mm 25°C	431.4	4
t_e	851.4	5
Density g/ml 20°C	0.6901	2
d_4^t 25	0.6849	2
30		
a		
b		
Ref. Index n_D 20°C	1.3852	2
25	1.3826	2
30		
"C"		
MR (Obs.)	23.14	2
MR (Calc.)		
(nD-d/2)	1.0402	2
Dielectric		
A -50 to 70°C	6.97263	2
B	1095.42	2
C	227.53	2
A* -50 to 50°C	1.25625	5
B*	1022.54	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to t_c °C		
Bc		
Cc		
Cryos. A°		
consts. B°		
t_e °C	43.45	5

		Ref.
dt/dP °C/mm		
25°C	0.0586	5
BP	0.0374	5
t_e	0.0342	5
30 mm	0.5251	5
ΔHm cal/g		
ΔHv cal/g		
25°C	100.63	5
30 mm	111.13	5
BP	97.28	5
t_e	96.62	5
t_e (d, e)	96.63	5
$\Delta Hv/T_e$	20.78	5
d -50 to 50 °C	105.42	5
e	0.2024	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	0.9810	5
30 mm	1.0000	5
BP	0.9693	5
t_e	0.9666	5
t_c		
ΔHc kcal/m	735.95	2
ΔHf	34.50	2
ΔFf	50.16	2
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.37114	2
400	0.45409	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0650	4
n	0.0012	4
o	$-0.0_{6}48$	4
m' 700 to 1000 °K	0.1410	4
n'	$0.0_{3}94$	4
o'	$-0.0_{6}32$	4
Surface tension dynes/cm. 20°C	19.34	5
γ 30	18.13	5
40	16.94	5
Parachor [P] 20°C		
30		
40		
Sugd.	207.4	5
Exp. L. l. %/wt.		
u.		
Dispersion	119.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE:

PURIFICATION:

LITERATURE REFERENCES:

No. 6

NAME	2-Pentyne			STRUCTURAL FORMULA $C_2H_5C{\equiv}CCH_3$
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114	

		Ref.
F.P. °C	-109.3	2
F.P. 100%		
B.P. °C		
760 mm	56.07	2
100	6.20	2
30	-16.0	2
10	-32.8	2
1	-61.	5
Pressure mm 25°C	235.8	5
t_e	898.4	5
Density g/ml 20°C	0.7107	2
d_4^t 25	0.7055	2
30	0.7003	4
a	0.7316	4
b	-0.00101	4
Ref. Index n_D 20°C	1.4039	2
25	1.4009	2
30	1.3979	4
"C"	0.7573	4
MR (Obs.)	23.43	2
MR (Calc.)	23.288	5
(nD-d/2)	1.0485	2
Dielectric	1.97	5
A -19 to 113°C	7.05189	2
B	1193.05	2
C	229.96	2
A* -19 to 71°C	1.30669	5
B*	1113.17	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac 113 to t_c °C	7.22935	5
Bc	1424.6	5
Cc	272.6	5
Cryos. consts. A°		
B°		
t_e °C	61.14	5

		Ref.
dt/dP °C/mm		
25°C	0.1003	5
BP	0.0392	5
t_e	0.0343	5
30 mm	0.556	5
ΔHm cal/g		
ΔHv cal/g		
25°C	108.5	5
30 mm	115.58	5
BP	102.6	5
t_e	101.66	5
t_e (d, e)	101.7	5
$\Delta Hv/T_e$	20.71	5
d -19 to 65 °C	112.7	5
e	0.1802	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C	241.	5
P_c mm	28675.	5
PV/RT		
25°C	0.9901	5
30 mm	1.0000	5
BP	0.9700	5
t_e	0.9663	5
t_c		
ΔHc kcal/m	732.25	2
ΔHf	30.80	2
ΔFf	46.41	2
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.34780	2
400	0.42869	2
c_v vap.		

			Ref.
f to °K			
g			
h			
f' to °K			
g'			
h'			
m	300 to 600 °K	0.0691	4
n		0.0010	4
o		-0.0_630	4
m'	700 to 1000 °K	0.1628	4
n'		0.0_381	4
o'		-0.0_622	4
Surface tension dynes/cm. γ 20°C		21.84	5
30		20.54	5
40		19.27	5
Parachor [P] 20°C			
30			
40			
Sugd.		207.4	5
Exp. L.1.%/wt. u.			
Dispersion			
Flash Point °C			
Fire Point			
M Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 7

NAME	3-Methyl-1-butyne			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_5H_8	Molecular Weight 68.114	$CH_3(CH_2)_2C{\equiv}CH$

		Ref.
F.P. °C	-89.7	2
F.P. 100%		
B.P. °C		
760 mm	26.35	2
100	-19.4	4
30	-39.5	4
10	-55.	5
1		
Pressure		
mm 25°C	723.4	4
t_e	799.8	5
Density		
g/ml 20°C	0.666	2
d_4^t 25	0.660	2
30	0.654	4
a	0.691	4
b	-0.001	4
Ref. Index		
n_D 20°C	1.3723	2
25	1.3695	2
30	1.3667	4
"C"	0.7482	4
MR (Obs.)	23.261	2
MR (Calc.)	23.288	5
(nD-d/2)	1.039	2
Dielectric	1.88	5
A -40 to	6.88971	5
B 73 °C	1017.50	5
C	227.46	5
A* -40 to	1.21594	5
B* 38 °C	952.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 73 to	7.34037	5
Bc t_c °C	1329.4	5
Cc	272.6	5
Cryos. A°		
consts. B°		
t_e °C	27.76	5

		Ref.
dt/dP		
°C/mm		
25°C	0.0376	5
BP	0.0362	5
t_e	0.0348	5
30 mm	0.4974	5
ΔHm cal/g		
ΔHv cal/g		
25°C	91.0	5
30 mm	106.8	5
BP	90.63	5
t_e	90.26	5
t_e (d, e)	90.29	5
$\Delta Hv/T_e$	20.43	5
d -40 to	97.10	5
e 28 °C	0.2455	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	188.	5
P_c mm	28529.	5
PV/RT		
25°C	0.9578	5
30 mm	1.0000	5
BP	0.9566	5
t_e	0.9549	5
t_c		
ΔHc kcal/m	734.05	2
ΔHf	32.60	2
ΔFf	49.12	2
Viscosity		
centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.36894	2
400	0.45659	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0293	4
n 600 °K	0.0013	4
o	$-0.0_{6}64$	4
m' 700 to	0.1145	4
n' 1000 °K	0.0010	4
o'	$-0.0_{6}37$	4
Surface tension		
dynes/cm. 20°C	16.67	5
γ 30	15.41	5
40	14.17	5
Parachor [P]		
20°C		
30		
40		
Sugd.	207.4	5
Exp. L.1.%/wt.		
u.		
Dispersion		
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 8

NAME	1-Hexyne		STRUCTURAL FORMULA $C_4H_9C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula C_6H_{10}	Molecular Weight 82.140

		Ref.
F.P. °C	-131.9	2
F.P. 100%		
B.P. °C		
760 mm	71.33	2
100	18.2	4
30	-5.2	4
10	-22.9	5
1	-52.2	5
Pressure mm 25°C	136.05	5
t_e	925.6	5
Density g/ml 20°C	0.7155	2
d_4^t 25	0.7106	2
30	0.7057	4
a	0.7351	4
b	$-0.0_{3}96$	4
Ref. Index n_D 20°C	1.3989	2
25	1.3960	2
30	1.3931	4
"C"	0.7435	4
MR (Obs.)	27.76	2
MR (Calc.)	27.906	5
(nD-d/2)	1.0412	2
Dielectric	1.96	5
A | -8 to	6.91212	5
B | 118 °C	1194.6	5
C	225.	5
A* | -8 to	1.26142	5
B* | 88 °C	1119.4	5
K		
c		
t_k | to		
t_x | °C		
A' | to		
B' | °C		
C'		
A'* to		
B'* °C		
Ac | 118 to	7.16827	5
Bc | t_c °C	1453.8	5
Cc	268.5	5
Cryos. A°		
consts. B°		
t_e °C	77.76	5

		Ref.
dt/dP °C/mm		
25°C	0.1670	5
BP	0.042	2
t_e	0.0360	5
30 mm	0.5854	5
ΔHm cal/g		
ΔHv cal/g		
25°C	93.6	5
30 mm	98.94	5
BP	85.40	5
t_e	84.3	5
t_e (d, e)	84.27	5
$\Delta Hv/T_e$	19.73	5
d | -8 to	98.02	5
e | 78 °C	0.1769	5
d' | to		
e' | °C		
d_c g/ml		
v_c ml/g		
t_c °C	248.	5
P_c mm	22734.	5
PV/RT		
25°C	0.9913	5
30 mm	1.0000	5
BP	0.9550	5
t_e	0.9479	5
t_c		
ΔHc kcal/m	882.85	2
ΔHf	29.55	2
ΔFf	52.17	2
Viscosity centistokes η °C		
B^v | to		
A^v | °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.37460	2
400	0.46104	2
c_v vap.		

		Ref.
f | to		
g | °K		
h		
f' | to		
g' | °K		
h'		
m | 300 to	0.0576	4
n | 600 °K	0.0012	4
o	$-0.0_{6}48$	4
m' | 700 to	0.1451	4
n' | 1000 °K	$0.0_{3}96$	4
o'	$-0.0_{6}32$	4
Surface tension dynes/cm. 20°C	21.16	5
γ 30	19.99	5
40	18.85	5
Parachor [P] 20°C		
30		
40		
Sugd.	246.4	5
Exp. L.l.%/wt.		
u.		
Dispersion	115.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 9

NAME	1-Heptyne				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_7H_{12}		Molecular Weight 96.166	$C_5H_{11}C{\equiv}CH$

		Ref.
F.P. °C	-80.9	2
F.P. 100%		
B.P. °C		
760 mm	99.74	2
100	39.63	4
30	13.56	4
10	-6.0	5
1	-38.0	5
Pressure mm 25°C	52.51	5
t_e	1017.9	5
Density g/ml 20°C	0.7328	2
d_4^t 25	0.7283	2
30	0.7238	4
a	0.7508	4
b	-0.0_389	4
Ref. Index n_D 20°C	1.4087	2
25	1.4061	2
30	1.4033	4
"C"	0.7427	4
MR (Obs.)	32.42	2
MR (Calc.)	32.524	5
(nD-d/2)	1.0423	2
Dielectric	1.98	5
A 14 to	6.68593	5
B 142 °C	1216.6	5
C	220.	5
A* 14 to	1.05646	5
B* 121 °C	1132.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 142 to	7.10459	5
Bc t_c °C	1538.4	5
Cc	265.0	5
Cryos. A°		
consts. B°		
t_e °C	110.76	5

		Ref.
dt/dP °C/mm		
25°C	0.4081	5
BP	0.0450	2
t_e	0.03836	5
30 mm	0.6491	5
ΔHm cal/g		
ΔHv cal/g		
25°C	85.69	5
30 mm	87.26	5
BP	75.40	5
t_e	73.85	5
t_e (d, e)	73.88	5
$\Delta Hv/T_e$	18.50	5
d 14 to	89.13	5
e 111 °C	0.1377	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	280.	5
P_c mm	19163.	5
PV/RT		
25°C	0.9996	5
30 mm	1.0000	5
BP	0.9622	5
t_e	0.9529	5
t_c		
ΔHc kcal/m	1029.77	2
ΔHf	24.62	2
ΔFf	54.18	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v) to		
(A^v) °C		
c_p liq. °K		
c_p vap. 300°K	0.37716	2
400	0.46597	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0526	4
n 600 °K	0.0012	4
o	-0.0_648	4
m' 700 to	0.1346	4
n' 1000 °K	0.0010	4
o'	-0.0_634	4
Surface tension dynes/cm. 20°C	22.34	5
γ 30	21.25	5
40	20.19	5
Parachor [P] 20°C		
30		
40		
Sugd.	285.4	5
Exp. L. l. %/wt. u.		
Dispersion	113.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.75\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 10

NAME	1-Octyne			STRUCTURAL FORMULA $C_6H_{13}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula C_8H_{14}	Molecular Weight 110.192	

		Ref.
F.P. °C	-79.3	2
F.P. 100%		
B.P. °C		
760 mm	126.2	2
100	66.39	5
30	39.86	5
10	19.68	5
1	-13.73	5
Pressure mm 25°C	13.60	5
t_e	1077.7	5
Density g/ml 20°C	0.7461	2
d_4^t 25	0.7419	2
30	0.7377	4
a	0.7629	4
b	0.000836	4
Ref. Index n_D 20°C	1.4159	2
25	1.4134	2
30	1.4109	4
"C"	0.7146	5
MR (Obs.)	37.05	2
MR (Calc.)	37.142	5
(nD-d/2)	1.0428	2
Dielectric		
A 25 to 170 °C	7.02447	4
B	1413.8	4
C	215.0	5
A* 33 to 160 °C	1.44610	5
B*	1329.7	5
K		
c		
t_k to		
t_x °C		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to t_c °C		
Bc		
Cc		
Cryos. A°		
consts. B°		
t_e °C	139.16	5

		Ref.
dt/dP °C/mm		
25°C	1.3009	5
BP	0.0471	2
t_e	0.0358	5
30 mm	0.6651	5
ΔHm cal/g		
ΔHv cal/g		
25°C	90.74	5
30 mm	88.54	5
BP	75.99	5
t_e	74.18	5
t_e (d, e)	74.11	5
$\Delta Hv/T_e$	19.82	5
d 25 to 150 °C	94.33	5
e	0.1453	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
25°C	1.0016	5
30 mm	1.0000	5
BP	0.9500	5
t_e	0.9394	5
t_c		
ΔHc kcal/m	1176.70	2
ΔHf	19.70	2
ΔFf	56.19	2
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.3790	2
400	0.4696	2
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m 300 to 600 °K	0.0487	4
n	0.0012	4
o	-0.0_648	4
m' 700 to 1000 °K	0.1326	4
n'	0.0010	4
o'	-0.0_634	4
Surface tension dynes/cm. γ 20°C	23.27	5
30	22.23	5
40	21.23	5
Parachor [P] 20°C		
30		
40		
Sugd.	324.4	5
Exp. L.l.%/wt. u.		
Dispersion	111.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE:

PURIFICATION:

LITERATURE REFERENCES:

No. 11

NAME	1-Nonyne		STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula C_9H_{16}	Molecular Weight 124.218
			$C_7H_{15}C{\equiv}CH$

		Ref.
F.P. °C		
F.P. 100%	-50.	2
B.P. °C		
760 mm	150.8	2
100	84.23	5
30	55.19	5
10	33.28	5
1	2.64	5
Pressure mm 25°C	6.26	5
t_e	1148.0	5
Density g/ml 20°C	0.7568	2
d_4^t 25	0.7527	2
30	0.7486	4
a	0.7732	5
b	$-0.0_{3}82$	5
Ref. Index n_D 20°C	1.4217	2
25	1.4193	2
30	1.4169	4
"C"		
MR (Obs.)	41.64	2
MR (Calc.)	41.760	5
(nD-d/2)	1.0430	2
Dielectric		
A 50 to	6.77410	5
B 223 °C	1404.7	5
C	210.	5
A* 51 to	1.22540	5
B* 180 °C	1316.75	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	168.2	5

		Ref.
dt/dP °C/mm		
25°C	2.727	5
BP	0.0530	5
t_e	0.0385	5
30 mm	0.7247	5
ΔHm cal/g		
ΔHv cal/g		
25°C	83.15	5
30 mm	79.30	5
BP	67.35	5
t_e	65.28	5
t_e (d, e)	64.52	5
ΔHv/T_e	18.40	5
d 50 to	86.20	5
e 160 °C	0.1250	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	334.	5
P_c mm	14300.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9482	5
t_e	0.9346	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38046	2
400	0.47248	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0459	4
n	600 °K	0.0013	4
o		$-0.0_{6}49$	4
m'	700 to	0.1312	4
n'	1000 °K	0.0010	4
o'		$-0.0_{6}35$	4
Surface tension dynes/cm. γ 20°C		24.02	5
30		23.00	5
40		22.00	5
Parachor [P] 20°C			
30			
40			
Sugd.		363.4	5
Exp. L.1.%/wt.			
u.			
Dispersion		110.	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

$T_R = 0.82\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 12

NAME	1-Decyne				STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{10}H_{18}$		Molecular Weight 138.244	$C_8H_{17}C{\equiv}CH$

		Ref.
F.P. °C	-44.	2
F.P. 100%		
B.P. °C		
760 mm	174.	2
100	108.48	5
30	79.28	5
10	57.00	5
1	20.00	5
Pressure mm 25°C	1.42	5
t_e	1198.8	5
Density g/ml 20°C	0.7655	2
d_4^t 25	0.7616	2
30	0.7577	4
a	0.7811	4
b	-0.0_378	4
Ref. Index n_D 20°C	1.4265	2
25	1.4242	2
30	1.4219	4
"C"	0.7402	4
MR (Obs.)	46.30	2
MR (Calc.)	46.378	5
(nD-d/2)	1.0437	2
Dielectric		
A 78 to	7.10870	5
B 246 °C	1601.6	5
C	206.0	5
A* 78 to	1.60046	5
B* 204 °C	1519.05	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	192.7	5

$T_R = 0.83\ T_c$

		Ref.
dt/dP °C/mm		
25°C	10.1246	5
BP	0.0514	5
t_e	0.0358	5
30 mm	0.7333	5
ΔHm cal/g		
ΔHv cal/g		
25°C	88.69	5
30 mm	81.14	5
BP	68.78	5
t_e	66.49	5
t_e (d, e)	66.38	5
$\Delta Hv/T_e$	19.63	5
d 78 to	91.48	5
e 194 °C	0.1304	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	354.	5
P_c mm	17454.	5
PV/RT		
25°C	1.0000	5
30 mm	1.0000	5
BP	0.9400	5
t_e	0.9250	5
t_c		
ΔHc kcal/m	1470.54	2
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38157	2
400	0.47481	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0424	4
n 600 °K	0.0013	4
o	-0.0_649	4
m' 700 to	0.1345	4
n' 1000 °K	0.0010	4
o'	-0.0_635	4
Surface tension dynes/cm. γ 20°C	24.65	5
30	23.66	5
40	22.70	4
Parachor [P] 20°C		
30		
40		
Sugd.	402.4	5
Exp. L.1.%/wt. u.		
Dispersion	108.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 13

NAME	1-Undecyne
STRUCTURAL FORMULA	$C_9H_{19}C{\equiv}CH$
Mole % Pur.	
Ref.	
Molecular Formula	$C_{11}H_{20}$
Molecular Weight	157.270

		Ref.
F.P. °C	-25.	2
F.P. 100%		
B.P. °C		
760 mm	195.	2
100	126.84	4
30	96.43	4
10	73.20	5
1	34.61	5
0.1	5.51	5
Press. mm t_e	1248.	5
Density g/ml 20°C	0.7728	2
d_4^t 25	0.7690	2
30	0.7652	4
a	0.7880	4
b	-0.0_376	4
Ref. Index		
n_D 20°C	1.4306	2
25	1,4284	2
30	1.4262	4
"C"	0.7398	4
MR (Obs.)	50.97	2
MR (Calc.)	50.996	5
(nD-d/2)	1.0442	2
Dielectric	2.05	5
A 80 to	7.13064	4
B 267 °C	1687.2	4
C	202.	5
A* 80 to	1.67084	5
B* 267°C	1599.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 267 to	8.22204	5
Bc t_c °C	2858.81	5
Cc	342.89	5
Cryos. A°		
consts. B°		
t_e °C	216.2	5

		Ref.
dt/dP °C/mm		
0.1 mm	110.84	5
BP	0.0534	5
t_e	0.0361	5
30 mm	0.7642	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	88.55	5
30 mm	75.22	5
BP	63.31	5
t_e	60.92	5
t_e (d, e)	60.74	5
ΔHv/T_e	19.57	5
d 97 to	86.88	5
e 217 °C	0.1209	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	373.	5
P_c mm	16891.	5
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9339	5
t_e	0.9169	5
t_c		
ΔHc kcal/m	1617.48	2
ΔHf	4.92	2
ΔFf	62.21	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38248	2
400	0.47665	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0405	4
n 600 °K	0.0013	4
o	-0.0_649	4
m' 700 to	0.1329	4
n' 1000 °K	0.0010	4
o'	-0.0_635	4
Surface tension		
dynes/cm. 20°C	22.13	5
γ 30	21.27	5
40	20.44	5
Parachor [P]		
20°C		
30		
40		
Sugd.	441.4	5
Exp. L.l.%/wt.		
u.		
Dispersion	107.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.84\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 14

NAME	1-Dodecyne			**STRUCTURAL FORMULA** $C_{10}H_{21}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{12}H_{22}$	**Molecular Weight** 166.296	

		Ref.
F.P. °C	-19.	2
F.P. 100%		
B.P. °C		
760 mm	215.	2
100	144.63	4
30	113.15	4
10	89.09	5
1	49.05	5
0.1	18.8	5
Press. mm t_e	1313.0	5
Density g/ml 20°C	0.7788	2
d_4^t 25	0.7751	2
30	0.7714	4
a	0.7936	4
b	-0.0_374	4
Ref. Index n_D 20°C	1.4340	2
25	1.4318	2
30	1.4296	4
"C"	0.7396	4
MR (Obs.)	55.61	2
MR (Calc.)	55.614	5
(nD-d/2)	1.0446	2
Dielectric	2.06	5
A 113 to	7.16929	4
B 288 °C	1771.1	4
C	198.	5
A* 100 to	1.70703	5
B* 288 °C	1677.4	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 288 to	8.42471	5
Bc t_c °C	3185.77	5
Cc	362.54	5
Cryos. A°		
consts. B°		
t_e °C	239.2	5

		Ref.
dt/dP °C/mm		
0.1 mm	115.26	5
BP	0.0550	5
t_e	0.0357	5
30 mm	0.7913	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	81.75	5
30 mm	75.06	5
BP	63.49	5
t_e	60.89	5
t_e (d, e)	60.74	5
$\Delta Hv/T_e$	19.76	5
d 100 to	87.91	5
e 250 °C	0.1136	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	391.	5
P_c mm	15719.	5
PV/RT		
0.1 mm	0.9251	5
30 mm	1.0000	5
BP	0.9391	5
t_e	0.9211	5
t_c		
ΔHc kcal/m	1764.40	2
ΔHf	-0.01	2
ΔFf	64.22	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38329	2
400	0.47818	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0391	4
n 600 °K	0.0013	4
o	-0.0_650	4
m' 700 to	0.1278	4
n' 1000°K	0.0011	4
o'	-0.0_636	4
Surface tension dynes/cm. 20°C	25.62	5
γ 30	24.66	5
40	23.73	5
Parachor [P] 20°C		
30		
40		
Sugd.	480.4	5
Exp. L.l.%/wt.		
u.		
Dispersion	107.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.84\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 15

NAME	1-Tridecyne		**STRUCTURAL FORMULA**
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{13}H_{24}$	**Molecular Weight** 180.322
			$C_{11}H_{23}C{\equiv}CH$

		Ref.
F.P. °C	-5.	2
F.P. 100%		
B.P. °C		
760 mm	234.	2
100	160.72	4
30	127.97	4
10	102.95	5
1	61.31	5
0.1	29.89	5
Press. mm t_e	1350.7	5
Density		
g/ml 20°C	0.7842	2
d_4^t 25	0.7806	2
30	0.7770	4
a	0.7986	4
b	$-0.0_{3}72$	4
Ref. Index		
n_D 20°C	1.4371	2
25	1.4349	2
30	1.4327	4
"C"	0.7394	4
MR (Obs.)	60.25	2
MR (Calc.)	60.232	5
(nD-d/2)	1.0449	2
Dielectric	2.06	5
A 120 to	7.15674	4
B 308 °C	1834.4	4
C	195.	5
A* 120 to	1.73019	5
B* 270 °C	1742.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 308 to	8.66116	5
Bc t_c °C	3575.90	5
Cc	387.79	5
Cryos. A°		
consts. B°		
t_e °C	260.6	5

		Ref.
dt/dP		
°C/mm		
0.1 mm	119.74	5
BP	0.0573	5
t_e	0.0364	5
30 mm	0.8232	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	84.53	5
30 mm	71.78	5
BP	60.04	5
t_e	57.33	5
t_e (d, e)	57.10	5
ΔHv/T_e	21.5	5
d 120 to	85.87	5
e 260 °C	0.1104	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	408.	5
P_c mm	14663.	5
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9299	5
t_e	0.9095	5
t_c		
ΔHc kcal/m	1911.32	2
ΔHf	-4.93	2
ΔFf	66.23	2
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap 300°K	0.38392	2
400	0.47948	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0376	4
n 600 °K	0.0013	4
o	$-0.0_{6}50$	4
m' 700 to	0.1306	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}36$	4
Surface tension		
dynes/cm. 20°C	26.03	5
γ 30	25.09	5
40	24.17	5
Parachor [P]		
20°C		
30		
40		
Sugd.	519.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	106.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.85\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 16

NAME	1-Tetradecyne			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{14}H_{26}$	Molecular Weight 194.348	$C_{12}H_{25}C\equiv CH$

		Ref.
F.P. °C	0.	2
F.P. 100%		
B.P. °C		
760 mm	252.	2
100	177.42	4
30	143.95	4
10	118.31	5
1	75.54	5
0.1	43.16	5
Press. mm t_e	1401.3	5
Density g/ml 20°C	0.7888	2
d_4^t 25	0.7852	2
30	0.7816	4
a	0.8032	4
b	$-0.0_{3}72$	4
Ref. Index n_D 20°C	1.4396	2
25	1.4375	2
30	1.4354	4
"C"	0.7391	4
MR (Obs.)	64.89	2
MR (Calc.)	64.850	5
(nD-d/2)	1.0452	2
Dielectric	2.07	5
A 145 to	7.23227	4
B 326 °C	1927.7	4
C	191.	5
A* 145 to	1.82367	5
B* 291 °C	1833.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac 326 to	8.88957	5
Bc t_c °C	3977.36	5
Cc	413.26	5
Cryos. A°		
consts. B°		
t_e °C	280.8	5

		Ref.
dt/dP °C/mm		
0.1 mm	123.53	5
BP	0.0582	5
t_e	0.0358	5
30 mm	0.8425	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	82.84	5
30 mm	70.33	5
BP	58.89	5
t_e	56.05	5
t_e (d, e)	55.83	5
$\Delta Hv/T_e$	19.66	5
d 145 to	85.52	5
e 281 °C	0.1059	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C	422.	5
P_c mm	13515.	5
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9306	5
t_e	0.9092	5
t_c		
ΔHc kcal/m	2058.24	2
ΔHf	-9.86	2
ΔFf	68.24	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38452	2
400	0.48058	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0368	4
n 600 °K	0.0013	4
o	$-0.0_{6}50$	4
m' 700 to	0.1296	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}36$	4
Surface tension dynes/cm. γ 20°C	26.38	5
30	25.43	5
40	24.51	5
Parachor [P] 20°C		
30		
40		
Sugd.	558.4	5
Exp. L.l.%/wt.		
u.		
Dispersion	105.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

$T_R = 0.86\ T_c$

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 17

NAME	1-Pentadecyne		STRUCTURAL FORMULA $C_{13}H_{27}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula $C_{15}H_{28}$	Molecular Weight 208.374

		Ref.
F.P. °C	10.	2
F.P. 100%		
B.P. °C		
760 mm	268.	2
100	190.84	4
30	156.26	4
10	129.79	5
1	85.69	5
0.1	52.33	5
Press. mm t_e	1427.3	5
Density g/ml 20°C	0.7928	2
d_4^t 25	0.7893	2
30	0.7858	4
a	0.8068	4
b	-0.0370	4
Ref. Index n_D 20°C	1.4419	2
25	1.4398	2
30	1.4377	4
"C"	0.7390	4
MR (Obs.)	69.53	2
MR (Calc.)	69.468	5
(nD-d/2)	1.0455	2
Dielectric	2.08	5
A 140 to	7.20553	4
B 349°C	1972.07	4
C	188.	5
A* 150 to	1.83303	5
B* 310°C	1881.34	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	298.8	5

		Ref.
dt/dP °C/mm		
0.1 mm	127.20	5
BP	0.0603	5
t_e	0.0366	5
30 mm	0.8700	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm	79.33	5
30 mm	67.33	5
BP	55.69	5
t_e	52.77	5
t_e (d, e)	52.48	5
ΔHv/T_e	19.22	5
d 150 to	83.61	5
e 305 °C	0.1042	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9208	5
t_e	0.8969	5
t_c		
ΔHc kcal/m	2205.17	2
ΔHf	-14.78	2
ΔFf	70.25	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38498	2
400	0.48154	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0357	4
n 600 °K	0.0013	4
o	-0.0_650	4
m' 700 to	0.1294	4
n' 1000 °K	0.0011	4
o'	-0.0_636	4
Surface tension dynes/cm. γ 20°C	26.69	5
30	25.76	5
40	24.85	5
Parachor [P] 20°C		
30		
40		
Sugd.	597.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	105.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 18

NAME	1-Hexadecyne				STRUCTURAL FORMULA $C_{14}H_{29}C{\equiv}CH$
Mole % Pur.		Ref.	Molecular Formula $C_{16}H_{30}$	Molecular Weight 222.400	

		Ref.
F.P. °C	15.	2
F.P. 100%		
B.P. °C		
760 mm	284.	2
100	208.55	4
30	174.24	4
10	147.8	5
1	103.3	5
0.1	69.2	5
Press. mm t_e	1465.5	5
Density g/ml 20°C	0.7965	2
d_4^t 25	0.7930	2
30	0.7895	4
a	0.8105	4
b	-0.0_370	4
Ref. Index n_D 20°C	1.4440	2
25	1.4419	2
30	1.4398	4
"C"	0.7388	4
MR (Obs.)	74.17	2
MR (Calc.)	74.086	5
(nD-d/2)	1.0457	2
Dielectric	2.08	5
A 172 to	7.47511	4
B 367 °C	2154.7	4
C	185.	5
A* 172 to	2.12483	5
B* 327 °C	2064.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	316.2	5

		Ref.
dt/dP °C/mm		
0.1 mm	130.28	5
BP	0.0583	5
t_e	0.0344	5
30 mm	0.8670	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	68.73	5
BP	57.04	5
t_e	53.99	5
t_e (d, e)	53.7	5
$\Delta Hv/T_e$	21.7	5
d 172 to	87.30	5
e 317 °C	0.1066	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9197	5
t_e	0.8955	5
t_c		
ΔHc kcal/m	2352.09	2
ΔHf	-19.71	2
ΔFf	72.26	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38539	2
400	0.48237	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0349	4
n 600 °K	0.0013	4
o	-0.0_650	4
m' 700 to	0.1290	4
n' 1000 °K	0.0011	4
o'	-0.0_636	4
Surface tension dynes/cm. γ 20°C	26.99	5
30	26.05	5
40	25.14	5
Parachor [P] 20°C		
30		
40		
Sugd.	636.4	5
Exp. L.l.%/wt. u.		
Dispersion	104.	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 19

NAME	1-Heptadecyne		**STRUCTURAL FORMULA**
			$C_{15}H_{31}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula $C_{17}H_{32}$	Molecular Weight 236.426

		Ref.
F.P. °C	22.	2
F.P. 100%		
B.P. °C		
760 mm	299.	2
100	221.80	4
30	186.68	4
10	159.6	5
1	114.0	5
0.1	79.1	5
Press. mm t_e	1502.1	5
Density g/ml 20°C	0.7996≠	2
d_4^t 25	0.7961	2
30	0.7926	4
a	0.8136	4
b	-0.0370	4
Ref. Index n_D 20°C	1.4457≠	2
25	1.4437	2
30	1.4417	4
"C"	0.7386	4
MR (Obs.)	78.802≠	2
MR (Calc.)	78.704	5
(nD-d/2)	1.0459≠	2
Dielectric	2.09	5
A 184 to	7.48829	4
B 384 °C	2216.2	4
C	182.	5
A* 184 to	2.21619	5
B* 344 °C	2125.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	333.7	5

		Ref.
dt/dP °C/mm		
0.1 mm	133.58	5
BP	0.0597	5
t_e	0.0345	5
30 mm	0.8879	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	66.70	5
BP	55.18	5
t_e	52.06	5
t_e (d, e)	51.5	5
ΔHv/T_e	21.5	5
d 184 to	85.85	5
e 334 °C	0.1026	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9176	5
t_e	0.8921	5
t_c		
ΔHc kcal/m	2499.01	2
ΔHf	-24.64	2
ΔFf	74.27	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap 300°K	0.38579	2
400	0.48311	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0342	4
n 600 °K	0.0013	4
o	$-0.0_{6}50$	4
m' 700 to	0.1278	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}37$	4
Surface tension dynes/cm. 20°C	27.22	5
γ 30	26.28	5
40	25.37	5
Parachor [P] 20°C		
30		
40		
Sugd.	675.4	5
Exp. L.l.%/wt.		
u.		
Dispersion	104.	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 20

NAME	1-Octadecyne		STRUCTURAL FORMULA $C_{16}H_{33}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula $C_{18}H_{34}$	Molecular Weight 250.452

		Ref.
F.P. °C	27.	2
F.P. 100%		
B.P. °C		
760 mm	313.	2
100	234.16	4
30	198.25	4
10	170.5	5
1	123.8	5
0.1	88.1	5
Press. mm		
t_e	1540.6	5
Density g/ml 20°C	0.8025≠	2
d_4^t 25	0.7990≠	2
30	0.7955≠	4
a	0.8165	4
b	-0.0370	4
Ref. Index		
n_D 20°C	1.4474≠	2
25	1.4453≠	2
30	1.4432≠	4
"C"	0.7386	4
MR (Obs.)	83.451≠	2
MR (Calc.)	83.322	5
(nD-d/2)	1.0461≠	2
Dielectric	2.09	5
A 196 to	7.50787	4
B 400 °C	2281.1	4
C	180.	5
A* 196 to	2.19183	5
B* 360 °C	2187.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	348.0	5

		Ref.
dt/dP °C/mm		
0.1 mm	136.86	5
BP	0.0609	5
t_e	0.0345	5
30 mm	0.9080	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	64.71	5
BP	53.55	5
t_e	50.39	5
t_e (d, e)	50.2	5
ΔHv/T_e	21.4	5
d 196 to	83.98	5
e 350 °C	0.0972	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9178	5
t_e	0.8914	5
t_c		
ΔHc kcal/m	2645.94	2
ΔHf	-29.56	2
ΔFf	76.28	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38610	2
400	0.48377	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0334	4
n 600 °K	0.0013	4
o	-0.0_650	4
m' 700 to	0.1301	4
n' 1000 °K	0.0011	4
o'	-0.0_636	4
Surface tension dynes/cm. 20°C	27.46	5
γ 30	26.51	5
40	25.59	5
Parachor [P] 20°C		
30		
40		
Sugd.	714.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	104.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 21

NAME	1-Nonadecyne				**STRUCTURAL FORMULA**
Mole % Pur.		**Ref.**	**Molecular Formula** $C_{19}H_{36}$	**Molecular Weight** 264.478	$C_{17}H_{35}C{\equiv}CH$

		Ref.
F.P. °C	33.	2
F.P. 100%		
B.P. °C		
760 mm	327.	2
100	246.54	4
30	209.87	4
10	181.6	4
1	133.9	5
0.1	97.4	5
Press. mm t_e	1580.0	5
Density g/ml 20°C	0.8050≠	2
d_4^t 25	0.8016≠	2
30	0.7982≠	4
a	0.8186	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4488≠	2
25	1.4467≠	2
30	1.4446≠	4
"C"	0.7384	4
MR (Obs.)	88.088≠	2
MR (Calc.)	87.940	5
(nD-d/2)	1.0463≠	2
Dielectric	2.10	
A 208 to 416 °C	7.51711	4
B	2336.7	4
C	177.	5
A* 208 to 376 °C	2.21395	5
B*	2241.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e **°C**	365.2	5

		Ref.
dt/dP °C/mm		
0.1 mm	139.89	5
BP	0.0621	5
t_e	0.0344	5
30 mm	0.9272	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	63.00	5
BP	52.12	5
t_e	48.92	5
t_e (d, e)	48.68	5
ΔHv/T_e	21.2	5
d 208 to	82.47	5
e 366 °C	0.0928	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9184	5
t_e	0.8912	5
t_c		
ΔHc kcal/m	2792.86	2
ΔHf	-34.49	2
ΔFf	78.29	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38642	2
400	0.48435	2
c_v vap.		

			Ref.
f	to		
g	°K		
h			
f'	to		
g'	°K		
h'			
m	300 to	0.0329	4
n	600 °K	0.0013	4
o		-0.0_650	4
m'	700 to	0.1267	4
n'	1000 °K	0.0011	4
o'		-0.0_637	4
Surface tension dynes/cm. γ	20°C	27.65	5
	30	26.73	5
	40	25.83	5
Parachor [P]	20°C		
	30		
	40		
	Sugd.	753.4	5
Exp. L.1.%/wt.			
u.			
Dispersion		103.≠	2
Flash Point °C			
Fire Point			
M. Spec.			
Ultra V.			
X-Ray Dif.			
Infrared			
Solubility in +			
Acetone			
Carbon tet.			
Benzene			
Ether			
n-Heptane			
Ethanol			
Water			
Water in			

≠ for undercooled liquid + grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 22

NAME	1-Eicosyne			STRUCTURAL FORMULA $C_{18}H_{37}C\equiv CH$
Mole % Pur.	Ref.	Molecular Formula $C_{20}H_{38}$	Molecular Weight 278.504	

		Ref.
F.P. °C	36.	2
F.P. 100%		
B.P. °C		
760 mm	340.	2
100	258.03	4
30	220.67	4
10	191.8	5
1	143.2	5
0.1	106.0	5
Press. mm t_e	1601.5	5
Density g/ml 20°C	0.8073$^{\neq}$	2
d_4^t 25	0.8039$^{\neq}$	2
30	0.8005$^{\neq}$	4
a	0.8209	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4501$^{\neq}$	2
25	1.4481$^{\neq}$	2
30	1.4461$^{\neq}$	4
"C"	0.7383	4
MR (Obs.)	92.728$^{\neq}$	2
MR (Calc.)	92.558	5
(nD-d/2)	1.0465$^{\neq}$	2
Dielectric	2.10	5
A 219 to	7.52336	4
B 431 °C	2386.3	4
C	174.	5
A* 219 to	2.24673	5
B* 391 °C	2294.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	379.8	5

		Ref.
dt/dP °C/mm		
0.1 mm	142.65	5
BP	0.0633	5
t_e	0.0347	5
30 mm	0.9540	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	60.40	5
BP	50.36	5
t_e	47.09	5
t_e (d, e)	46.82	5
$\Delta Hv/T_e$	21.4	5
d 219 to	81.68	5
e 381 °C	0.0921	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.9122	5
t_e	0.8833	5
t_c		
ΔHc kcal/m	2939.78	2
ΔHf	-39.41	2
ΔFf	81.00	2
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. 300°K	0.38677	2
400	0.48488	2
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m 300 to	0.0323	4
n 600 °K	0.0013	4
o	$-0.0_{6}50$	4
m' 700 to	0.1264	4
n' 1000 °K	0.0011	4
o'	$-0.0_{6}37$	4
Surface tension dynes/cm. 20°C	27.84	5
γ 30	26.91	5
40	26.01	5
Parachor [P] 20°C		
30		
40		
Sugd.	792.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	103.$^{\neq}$	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 23

NAME	1-Heneicosyne			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{21}H_{40}$	Molecular Weight 292.530	$C_{19}H_{39}C{\equiv}CH$

		Ref.
F.P. °C	41.	2
F.P. 100%		
B.P. °C		
760 mm	352.	2
100	268.63	4
30	230.60	4
10	201.2	5
1	151.7	5
0.1	113.8	5
Press. mm t_e	1594.2	5
Density g/ml 20°C	0.8094≠	2
d_4^t 25	0.8060≠	2
30	0.8026≠	4
a	0.8230	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4513≠	2
25	1.4493≠	2
30	1.4473≠	4
"C"	0.7383	4
MR (Obs.)	97.33≠	2
MR (Calc.)	97.176	5
(nD-d/2)	1.0466≠	2
Dielectric	2.11	5
A 229 to	7.53602	4
B 444 °C	2439.3	4
C	172.	5
A* 229 to	2.30870	5
B* 404 °C	2360.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	393.3	5

		Ref.
dt/dP °C/mm		
0.1 mm	145.39	5
BP	0.0643	5
t_e	0.0354	5
30 mm	0.9700	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	58.90	5
BP	48.06	5
t_e	44.72	5
t_e (d, e)	44.32	5
ΔHv/T_e	20.9	5
d 229 to	81.85	5
e 394 °C	0.0960	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8948	5
t_e	0.8628	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.00	5
30	27.07	5
40	26.17	5
Parachor [P] 20°C		
30		
40		
Sugd.	831.4	5
Exp. L.1.%/wt. u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in⁺		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

⁺ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 24

NAME	1-Docosyne			**STRUCTURAL FORMULA** $C_{20}H_{41}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{22}H_{42}$	**Molecular Weight** 306.556	

		Ref.
F.P. °C	45.	2
F.P. 100%		
B.P. °C 760 mm	363.	2
100	278.35	4
30	239.72	4
10	209.9	5
1	159.5	5
0.1	121.0	5
Press. mm t_e	1621.8	5
Density g/ml 20°C	0.8114≠	2
d_4^t 25	0.8080≠	2
30	0.8046≠	4
a	0.8250	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4524≠	2
25	1.4504≠	2
30	1.4484≠	4
"C"	0.7381	4
MR (Obs.)	101.97≠	2
MR (Calc.)	101.794	5
(nD-d/2)	1.0468≠	2
Dielectric	2.11	5
A 238 to	7.54576	4
B 457 °C	2486.4	4
C	170.	5
A* 238 to	2.33263	5
B* 417 °C	2406.6	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	405.7	5

		Ref.
dt/dP °C/mm		
0.1 mm	147.86	5
BP	0.0653	5
t_e	0.0354	5
30 mm	0.9774	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm		
30 mm	58.13	5
BP	46.74	5
t_e	43.38	5
t_e (d, e)	43.0	5
ΔHv/T_e	20.9	5
d 238 to	80.28	5
e 407 °C	0.0924	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8943	5
t_e	0.8615	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	28.17	5
30	27.24	5
40	26.33	5
Parachor [P] 20°C		
30		
40		
Sugd.	870.4	5
Exp. L.I.%/wt. u.		
Dispersion	103.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 25

NAME	1-Tricosyne			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{23}H_{44}$	Molecular Weight 320.582	$C_{21}H_{43}C\equiv CH$

		Ref.
F.P. °C	49.	2
F.P. 100%		
B.P. °C		
760 mm	374.	2
100	288.06	4
30	248.83	4
10	218.5	5
1	167.3	5
0.1	128.1	5
Press. mm t_e	1648.9	5
Density g/ml 20°C	0.8131≠	2
d_4^t 25	0.8100≠	2
30	0.8069≠	4
a	0.8255	4
b	-0.0_362	4
Ref. Index n_D 20°C	1.4534≠	2
25	1.4514≠	2
30	1.4494≠	4
"C"	0.7381	4
MR (Obs.)	106.62 ≠	2
MR (Calc.)	106.412	5
(nD-d/2)	1.0469≠	2
Dielectric	2.11	5
A 248 to 469°C	7.55521	4
B	2533.5	4
C		
A* 248 to 429°C	2.35591	5
B*	2453.2	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac t_c to °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	418.1	5

		Ref.
dt/dP °C/mm		
0.1 mm	150.33	5
BP	0.0663	5
t_e	0.0355	5
30 mm	0.9928	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	56.68	5
BP	45.54	5
t_e	42.18	5
t_e (d, e)	41.82	5
ΔHv/T_e	20.9	5
d 248 to 419 °C	78.84	5
e	0.0890	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8936	5
t_e	0.8600	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	28.30	5
30	27.45	5
40	26.62	5
Parachor [P] 20°C		
30		
40		
Sugd.	909.4	5
Exp. L.1.%/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 26

NAME	1-Tetracosyne		STRUCTURAL FORMULA $C_{22}H_{45}C\equiv CH$
Mole % Pur.	Ref.	Molecular Formula $C_{24}H_{46}$	Molecular Weight 334.608

		Ref.
F.P. °C	52.	2
F.P. 100%		
B.P. °C		
760 mm	385.	2
100	297.78	4
30	257.94	4
10	227.1	5
1	175.2	5
0.1	135.3	5
Press. mm t_e	1677.	5
Density g/ml 20°C	0.8148≠	2
d_4^t 25	0.8114≠	2
30	0.8080≠	4
a	0.8284	4
b	-0.0_368	4
Ref. Index		
n_D 20°C	1.4544≠	2
25	1.4523≠	2
30	1.4502≠	4
"C"	0.7381	4
MR (Obs.)	111.26 ≠	2
MR (Calc.)	111.030	5
(nD-d/2)	1.0470≠	2
Dielectric	2.11	5
A 257 to	7.56438	4
B 482 °C	2580.7	4
C	166.	5
A* 257 to	2.37736	5
B* 442 °C	2499.5	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	430.4	5

		Ref.
dt/dP		
°C/mm		
0.1 mm	152.80	5
BP	0.0672	5
t_e	0.0355	5
30 mm	1.0082	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	55.36	5
BP	44.42	5
t_e	41.01	5
t_e (d, e)	40.66	5
ΔHv/T_e	20.8	5
d 257 to	77.56	5
e 432 °C	0.0861	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8933	5
t_e	0.8589	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	28.45	5
γ 30	27.51	5
40	26.59	5
Parachor [P]		
20°C		
30		
40		
Sugd.	948.4	5
Exp. L.l.%/wt.		
u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE:

PURIFICATION:

LITERATURE REFERENCES:

No. 27

NAME	1-Pentacosyne		STRUCTURAL FORMULA $C_{23}H_{47}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula $C_{25}H_{48}$	Molecular Weight 348.634

		Ref.
F.P. °C	55.	2
F.P. 100%		
B.P. °C		
760 mm	395.	2
100	306.62	4
30	266.24	4
10	235.0	5
1	182.3	5
0.1	141.9	5
Press. mm t_e	1701.6	5
Density g/ml 20°C	0.8163≠	2
d_4^t 25	0.8129≠	2
30	0.8095≠	4
a	0.8299	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4552≠	2
25	1.4532≠	2
30	1.4512≠	4
"C"	0.7380	4
MR (Obs.)	115.89≠	2
MR (Calc.)	115.648	5
(nD-d/2)	1.0471≠	2
Dielectric	2.12	5
A 265 to	7.57091	4
B 493 °C	2621.8	4
C	164.	5
A* 265 to	2.39684	5
B* 453 °C	2540.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A° consts. B°		
t_e °C	441.7	5

		Ref.
dt/dP °C/mm		
0.1 mm	155.00	5
BP	0.0681	5
t_e	0.0355	5
30 mm	1.0221	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	54.06	5
BP	43.32	5
t_e	39.89	5
t_e (d, e)	39.56	5
ΔHv/T_e	20.8	5
d 265 to	76.26	5
e 443 °C	0.0834	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8927	5
t_e	0.8575	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	28.57	5
γ 30	27.63	5
40	26.71	5
Parachor [P] 20°C		
30		
40		
Sugd.	987.4	5
Exp. L.1.%/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 28

NAME	1-Hexacosyne		**STRUCTURAL FORMULA** $C_{24}H_{49}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{26}H_{50}$	**Molecular Weight** 362.660

		Ref.
F.P. °C	57.	2
F.P. 100%		
B.P. °C		
760 mm	405.	2
100	315.45	4
30	274.53	4
10	242.9	5
1	189.4	5
0.1	148.5	5
Press. mm t_e	1727.	5
Density g/ml 20°C	0.8177≠	2
d_4^t 25	0.8143≠	2
30	0.8109≠	4
a	0.8313	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4560≠	2
25	1.4540≠	2
30	1.4520≠	4
"C"	0.7379	4
MR (Obs.)	120.53 ≠	2
MR (Calc.)	120.266	5
(nD-d/2)	1.0472≠	2
Dielectric	2.12	5
A 274 to 504°C	7.57727	4
B	2662.9	4
C	162.	5
A* 274 to 464°C	2.41490	5
B*	2580.6	5
K		
c		
t_k to t_x °C		
A' to B' °C C'		
A'* to B'* °C		
Ac Bc to t_c °C Cc		
Cryos. A° consts. B°		
t_e °C	452.9	5

		Ref.
dt/dP °C/mm		
0.1 mm	157.19	5
BP	0.0690	5
t_e	0.0356	5
30 mm	1.0359	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	52.86	5
BP	42.32	5
t_e	38.87	5
t_e (d, e)	38.55	5
ΔHv/T_e	20.8	5
d 274 to 454 °C	75.04	5
e	0.0808	5
d' to e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8924	5
t_e	0.8565	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	28.68	5
30	27.74	5
40	26.82	5
Parachor [P] 20°C		
30		
40		
Sugd.	1026.4	5
Exp. L.1.%/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 29

NAME	1-Heptacosyne			**STRUCTURAL FORMULA** $C_{25}H_{51}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{27}H_{52}$	**Molecular Weight** 376.686	

		Ref.
F.P. °C	60.	2
F.P. 100%		
B.P. °C		
760 mm	415.	2
100	324.29	4
30	282.82	4
10	250.7	5
1	196.6	5
0.1	155.0	5
Press. mm t_e	1751.8	5
Density g/ml 20°C	0.8190≠	2
d_4^t 25	0.8156≠	2
30	0.8122≠	4
a	0.8326	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4568≠	2
25	1.4548≠	2
30	1.4528≠	4
"C"	0.7380	4
MR (Obs.)	125.17≠	2
MR (Calc.)	124.884	5
(nD-d/2)	1.0473≠	2
Dielectric	2.12	5
A 282 to	7.58347	4
B 515 °C	2704.0	4
C	160.	5
A* 282 to	2.43266	5
B* 475 °C	2621.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	464.2	5

		Ref.
dt/dP °C/mm		
0.1 mm	159.39	5
BP	0.0699	5
t_e	0.0356	5
30 mm	1.0498	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	51.75	5
BP	41.38	5
t_e	37.91	5
t_e (d, e)	37.64	5
ΔHv/T_e	20.6	5
d 282 to	73.94	5
e 465 °C	0.0784	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8919	5
t_e	0.8553	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	28.79	5
γ 30	27.85	5
40	26.93	5
Parachor [P]		
20°C		
30		
40		
Sugd.	1065.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 30

NAME	1-Octacosyne		**STRUCTURAL FORMULA** $C_{26}H_{53}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{28}H_{54}$	**Molecular Weight** 390.712

		Ref.
F.P. °C	62.	2
F.P. 100%		
B.P. °C		
760 mm	424.	2
100	332.25	4
30	290.3	4
10	257.8	5
1	203.0	5
0.1	161.0	5
Press. mm t_e	1773.5	5
Density g/ml 20°C d_4^t	0.8202≠	2
25	0.8168≠	2
30	0.8134≠	4
a	0.8338	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4575≠	2
25	1.4555≠	2
30	1.4535≠	4
"C"	0.7380	4
MR (Obs.)	129.82 ≠	2
MR (Calc.)	129.502	5
(nD-d/2)	1.0474≠	2
Dielectric	2.12	5
A 290 to 526 °C	7.58724	4
B	2739.1	4
C	158.	5
A* 290 to 486 °C	2.44856	5
B*	2656.3	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to t_c °C		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	474.3	5

		Ref
dt/dP °C/mm		
0.1 mm	161.32	5
BP	0.0707	5
t_e	0.0356	5
30 mm	1.0621	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	50.65	5
BP	40.44	5
t_e	36.94	5
t_e (d, e)	36.64	5
ΔHv/T_e	20.7	5
d 290 to 476 °C	72.82	5
e	0.0764	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8912	5
t_e	0.8539	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	28.89	5
30	27.94	5
40	27.02	5
Parachor [P] 20°C		
30		
40		
Sugd.	1104.4	5
Exp. L.1.%/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

TABLE CV. ALKYNES

No. 31

NAME	1-Nonacosyne	**STRUCTURAL FORMULA**	
Mole % Pur.	Ref.	Molecular Formula $C_{29}H_{56}$	Molecular Weight 404.738
		$C_{27}H_{55}CH{\equiv}CH$	

		Ref.
F.P. °C	65.	2
F.P. 100%		
B.P. °C		
760 mm	432.	2
100	339.31	4
30	296.90	4
10	264.1	5
1	208.7	5
0.1	166.1	5
Press. mm t_e	1793.8	5
Density g/ml 20°C	0.8213≠	2
d_4^t 25	0.8180≠	2
30	0.8147≠	4
a	0.8345	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4581≠	2
25	1.4561≠	2
30	1.4541≠	4
"C"	0.7379	4
MR (Obs.)	134.45≠	2
MR (Calc.)	134.120	5
(nD-d/2)	1.0475≠	2
Dielectric	2.13	5
A 297 to	7.59699	4
B 535 °C	2777.8	4
C	157.	5
A* 297 to	2.46916	5
B* 495 °C	2694.2	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	483.3	

		Ref.
dt/dP °C/mm		
0.1 mm	163.23	5
BP	0.0714	5
t_e	0.0357	5
30 mm	1.0737	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	49.51	5
BP	39.52	5
t_e	36.05	5
t_e (d, e)	35.78	5
ΔHv/T_e	20.5	5
d 297 to	71.45	5
e 485 °C	0.0739	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8910	5
t_e	0.8531	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	28.98	5
γ 30	28.06	5
40	27.16	5
Parachor [P] 20°C		
30		
40		
Sugd.	1143.4	5
Exp. L.1.%/wt. u.		
Dispersion	102.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 32

NAME	1-Triacontyne		STRUCTURAL FORMULA $C_{28}H_{57}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula $C_{30}H_{58}$	Molecular Weight 418.764

		Ref.
F.P. °C	67.	2
F.P. 100%		
B.P. °C		
760 mm	441.	2
100	347.27	4
30	304.38	4
10	271.2	5
1	215.1	5
0.1	172.1	5
Press. mm t_e	1816.2	5
Density g/ml 20°C	0.8224≠	2
d_4^t 25	0.8190≠	2
30	0.8156≠	4
a	0.8360	4
b	-0.0_368	4
Ref. Index n_D 20°C	1.4587≠	2
25	1.4567≠	2
30	1.4547≠	4
"C"	0.7378	4
MR (Obs.)	139.08≠	2
MR (Calc.)	138.738	5
(nD-d/2)	1.0475≠	2
Dielectric	2.13	5
A 304 to	7.60053	4
B 545 °C	2813.0	4
C	155.	5
A* 304 to	2.48323	5
B* 505 °C	2729.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	493.4	5

		Ref.
dt/dP °C/mm		
0.1 mm	165.2	5
BP	0.0722	5
t_e	0.0357	5
30 mm	1.086	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	48.55	5
BP	38.71	5
t_e	35.19	5
t_e (d, e)	34.99	5
ΔHv/T_e	20.6	5
d 304 to	70.49	5
e 495 °C	0.0721	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8906	5
t_e	0.8521	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	29.07	5
γ 30	28.12	5
40	27.20	5
Parachor [P] 20°C		
30		
40		
Sugd.	1182.4	5
Exp. L.1.%/wt. u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 33

NAME	1-Hentriacontyne		**STRUCTURAL FORMULA**
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{31}H_{60}$	**Molecular Weight** 432.790

$C_{29}H_{59}C\equiv CH$

		Ref.
F.P. °C	69.	2
F.P. 100%		
B.P. °C		
760 mm	449.	2
100	354.32	4
30	310.98	4
10	277.4	5
1	220.7	5
0.1	177.2	5
Press. mm t_e	1836.8	5
Density g/ml 20°C	0.8234≠	2
d_4^t 25	0.8200≠	2
30	0.8166≠	4
a	0.8370	4
b	-0.0368	4
Ref. Index n_D 20°C	1.4593≠	2
25	1.4573≠	2
30	1.4553≠	4
"C"	0.7378	4
MR (Obs.)	143.71≠	2
MR (Calc.)	143.356	5
(nD-d/2)	1.0476≠	2
Dielectric	2.13	5
A 311 to	7.60994	4
B 554°C	2851.7	4
C	154.	5
A* 311 to	2.50239	5
B* 514°C	2766.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	502.4	5

		Ref.
dt/dP °C/mm		
0.1 mm	167.06	5
BP	0.0729	5
t_e	0.0357	5
30 mm	1.0976	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	47.55	5
BP	37.90	5
t_e	34.39	5
t_e (d, e)	34.20	5
ΔHv/T_e	20.6	5
d 311 to	69.30	5
e 504 °C	0.0699	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8905	5
t_e	0.8515	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	29.16	5
30	28.21	5
40	27.28	5
Parachor [P] 20°C		
30		
40		
Sugd.	1221.4	5
Exp. L.l.%/wt. u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 34

NAME	1-Dotriacontyne		STRUCTURAL FORMULA $C_{30}H_{61}C\equiv CH$
Mole % Pur.	Ref.	Molecular Formula $C_{32}H_{62}$	Molecular Weight 446.816

		Ref.
F.P. °C	71.	2
F.P. 100%		
B.P. °C 760 mm	457.	2
100	361.40	4
30	317.64	4
10	283.7	5
1	226.5	5
0.1	182.5	5
Press. mm t_e	1858.9	5
Density g/ml 20°C	0.8243≠	2
d_4^t 25	0.8210≠	2
30	0.8177≠	4
a	0.8375	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4598≠	2
25	1.4578≠	2
30	1.4558≠	4
"C"	0.7378	4
MR (Obs.)	148.37 ≠	2
MR (Calc.)	147.974	5
(nD-d/2)	1.0477≠	2
Dielectric	2.13	5
A 318 to	7.61111	4
B 563 °C	2880.8	4
C	152.	5
A* 318 to	2.51198	5
B* 523 °C	2794.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	511.4	5

		Ref.
dt/dP °C/mm 0.1 mm	168.72	5
BP	0.0736	5
t_e	0.0357	5
30 mm	1.1084	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm		
30 mm	46.66	5
BP	37.18	5
t_e	33.67	5
t_e (d, e)	33.47	5
ΔHv/T_e	20.6	5
d 318 to	68.25	5
e 513 °C	0.0680	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8910	5
t_e	0.8515	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f g h to °K		
f' g' h' to °K		
m n o to °K		
m' n' o' to °K		
Surface tension dynes/cm. γ 20°C	29.23	5
30	28.31	5
40	27.40	5
Parachor [P] 20°C		
30		
40		
Sugd.	1260.4	5
Exp. L.1.%/wt. u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 35

NAME	1-Tritriacontyne			STRUCTURAL FORMULA
Mole % Pur.	Ref.	Molecular Formula $C_{33}H_{64}$	Molecular Weight 460.842	$C_{31}H_{63}C{\equiv}CH$

		Ref.
F.P. °C	73.	2
F.P. 100%		
B.P. °C		
760 mm	464.	2
100	367.58	4
30	323.42	4
10	289.2	5
1	231.4	5
0.1	187.1	5
Press. mm t_e	1873.0	5
Density g/ml 20°C	0.8252≠	2
d_4^t 25	0.8218≠	2
30	0.8184≠	4
a	0.8388	4
b	-0.0_3368	4
Ref. Index n_D 20°C	1.4603≠	2
25	1.4583≠	2
30	1.4563≠	4
"C"	0.7377	4
MR (Obs.)	153.01≠	2
MR (Calc.)	152.592	5
(nD-d/2)	1.0477≠	2
Dielectric	2.13	5
A 324 to 571 °C	7.61812	4
B	2913.4	4
C	151.	5
A* 324 to 531 °C	2.53156	5
B*	2828.3	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	519.3	5

		Ref.
dt/dP °C/mm		
0.1 mm	170.36	5
BP	0.0742	5
t_e	0.0358	5
30 mm	1.1184	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	45.71	5
BP	36.35	5
t_e	32.82	5
t_e (d, e)	32.66	5
ΔHv/T_e	20.5	5
d 324 to	67.25	5
e 521 °C	0.0666	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8895	5
t_e	0.8494	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	29.31	5
30	28.35	5
40	27.42	5
Parachor [P] 20°C		
30		
40		
Sugd.	1299.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 36

NAME	1-Tetratriacontyne					STRUCTURAL FORMULA $C_{32}H_{65}C{\equiv}CH$
Mole % Pur.		Ref.	Molecular Formula $C_{34}H_{66}$		Molecular Weight 474.868	

		Ref.
F.P. °C	74.	2
F.P. 100%		
B.P. °C		
760 mm	472.	2
100	374.66	4
30	330.08	4
10	295.6	5
1	237.2	5
0.1	192.4	5
Press. mm		
t_e	1893.8	5
Density g/ml 20°C	0.8260≠	2
d_4^t 25	0.8227≠	2
30	0.8194≠	4
a	0.8392	4
b	-0.0$_3$66	4
Ref. Index		
n_D 20°C	1.4608≠	2
25	1.4588≠	2
30	1.4568≠	4
"C"	0.7377	4
MR (Obs.)	157.66 ≠	2
MR (Calc.)	157.210	5
(nD-d/2)	1.0478≠	2
Dielectric	2.13	5
A 330 to	7.61919	4
B 580 °C	2942.5	4
C	149.	5
A* 330 to	2.54137	5
B* 540 °C	2856.8	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	528.3	5

		Ref.
dt/dP °C/mm		
0.1 mm	172.02	5
BP	0.0749	5
t_e	0.0358	5
30 mm	1.1292	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	44.93	5
BP	35.70	5
t_e	32.17	5
t_e (d, e)	32.02	5
ΔHv/T_e	18.81	5
d 330 to	66.38	5
e 530 °C	0.0650	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8895	5
t_e	0.8489	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. 20°C	29.37	5
γ 30	28.45	5
40	27.54	5
Parachor [P] 20°C		
30		
40		
Sugd.	1338.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 37

NAME	1-Pentatriacontyne			**STRUCTURAL FORMULA** $C_{33}H_{67}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{35}H_{68}$	**Molecular Weight** 488.894	

		Ref.
F.P. °C	76.	2
F.P. 100%		
B.P. °C		
760 mm	479.	2
100	380.84	4
30	335.87	4
10	301.0	5
1	242.1	5
0.1	196.9	5
Press. mm t_e	1911.2	5
Density g/ml 20°C	0.8268≠	2
d_4^t 25	0.8235≠	2
30	0.8202≠	4
a	0.8400	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4612≠	2
25	1.4593≠	2
30	1.4574≠	4
"C"	0.7376	4
MR (Obs.)	162.28 ≠	2
MR (Calc.)	161.828	5
(nD-d/2)'	1.0479≠	2
Dielectric	2.13	5
A 336 to	7.62600	4
B 587 °C	2975.2	4
C	148.	5
A* 336 to	2.55750	5
B* 547 °C	2889.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	536.2	5

		Ref.
dt/dP °C/mm		
0.1 mm	177.23	5
BP	0.0755	5
t_e	0.0358	5
30 mm	1.1392	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	44.09	5
BP	35.02	5
t_e	31.48	5
t_e (d, e)	31.34	5
ΔHv/T_e	18.77	5
d 336 to	65.37	5
e 537 °C	0.0634	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8892	5
t_e	0.8481	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f, g, h to °K		
f', g', h' to °K		
m, n, o to °K		
m', n', o' to °K		
Surface tension dynes/cm. γ 20°C	29.44	5
30	28.51	5
40	27.61	5
Parachor [P] 20°C		
30		
40		
Sugd.	1377.4	5
Exp. L.1.%/wt. u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 38

NAME	1-Hexatriacontyne		STRUCTURAL FORMULA $C_{34}H_{69}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula $C_{36}H_{70}$	Molecular Weight 502.920

		Ref.
F.P. °C	77.	2
F.P. 100%		
B.P. °C 760 mm	486.	2
100	387.53	4
30	342.34	4
10	307.2	5
1	247.4	5
Pressure mm 200.97°C	0.1000	5
t_e	1954.3	5
Density g/ml 20°C	0.8275≠	2
d_4^t 25	0.8242≠	2
30	0.8209≠	4
a	0.8407	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4617≠	2
25	1.4597≠	2
30	1.4577≠	4
"C"	0.7378	4
MR (Obs.)	166.92≠	2
MR (Calc.)	166.446	5
(nD-d/2)	1.0479≠	2
Dielectric	2.14	5
A 342 to	7.66232	4
B 595 °C	3026.69	4
C	147.	5
A* 342 to	2.58413	5
B* 555 °C	2931.19	5
K		
c		
t_k to		
t_x °C		
A' to B' °C C'		
A'* to B'* °C		
Ac to Bc t_c °C Cc		
Cryos. A° consts. B°		
t_e °C	545.40	5

		Ref.
dt/dP °C/mm 200.97°C	175.29	5
BP	0.07565	5
t_e	0.03519	5
30 mm	1.1453	5
ΔHm cal/g		
ΔHv cal/g 200.97°C	50.77	5
30 mm	43.29	5
BP	34.37	5
t_e	30.84	5
t_e (d, e)	30.79	5
$\Delta Hv/T_e$	18.98	5
d 342 to	64.41	5
e 545 °C	0.0618	5
d' to e' °C		
d_c g/ml v_c ml/g t_c °C P_c mm		
PV/RT 200.97°C	1.0000	5
30 mm	1.0000	5
BP	0.8890	5
t_e	0.8475	5
t_c		
ΔHc kcal/m ΔHf ΔFf		
Viscosity centistokes η °C		
B^v to A^v °C (B^v) (A^v)		
c_p liq. °K c_p vap. °K c_v vap.		

		Ref.
f to g °K h		
f' to g' °K h'		
m to n °K o		
m' to n' °K o'		
Surface tension dynes/cm. 20°C	29.50	5
γ 30	28.57	5
40	27.66	5
Parachor [P] 20°C 30 40		
Sugd.	1416.4	5
Exp. L.1.%/wt. u.		
Dispersion	101. ≠	2
Flash Point °C Fire Point		
M Spec. Ultra V. X-Ray Dif. Infrared		
Solubility in + Acetone Carbon tet. Benzene Ether n-Heptane Ethanol Water Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 39

NAME	1-Heptatriacontyne		**STRUCTURAL FORMULA** $C_{35}H_{71}C\equiv CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{37}H_{72}$	**Molecular Weight** 516.946

		Ref.
F.P. °C	79.	2
F.P. 100%		
B.P. °C		
760 mm	493.	2
100	393.21	4
30	347.49	4
10	312.1	5
1	252.2	5
0.1	206.2	5
Press. mm		
t_e	1946.4	5
Density		
g/ml 20°C	0.8282≠	2
d_4^t 25	0.8249≠	2
30	0.8216≠	4
a	0.8414	4
b	-0.0366	4
Ref. Index		
n_D 20°C	1.4621≠	2
25	1.4601≠	2
30	1.4581≠	4
"C"	0.7377	4
MR (Obs.)	171.56 ≠	2
MR (Calc.)	171.034	5
(nD-d/2)	1.0480≠	2
Dielectric	2.14	5
A 348 to	7.63157	4
B 603 °C	3031.0	4
C	145.	5
A* 348 to	2.58066	5
B* 563 °C	2944.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. A°		
consts. B°		
t_e °C	553.0	5

		Ref.
dt/dP		
°C/mm		
0.1 mm	176.68	5
BP	0.0767	5
t_e	0.0359	5
30 mm	1.1584	
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	42.58	5
BP	33.76	5
t_e	30.21	5
t_e (d, e)	30.13	5
ΔHv/T_e	18.90	5
d 348 to	63.64	5
e 553 °C	0.0606	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8888	5
t_e	0.8468	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes		
η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension		
dynes/cm. 20°C	29.56	5
γ 30	28.63	5
40	27.72	5
Parachor [P]		
20°C		
30		
40		
Sugd.	1455.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 40

NAME	1-Octatriacontyne		**STRUCTURAL FORMULA** $C_{36}H_{73}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{38}H_{74}$	**Molecular Weight** 530.972

		Ref.
F.P. °C	80.	2
F.P. 100%		
B.P. °C		
760 mm	499.	2
100	398.51	4
30	352.45	4
10	316.8	5
1	256.4	5
0.1	210.1	5
Press. mm t_e	1962.3	5
Density g/ml 20°C	0.8289$^{\neq}$	2
d_4^t 25	0.8256$^{\neq}$	2
30	0.8223$^{\neq}$	4
a	0.8421	4
b	-0.0_366	4
Ref. Index n_D 20°C	1.4625$^{\neq}$	2
25	1.4605$^{\neq}$	2
30	1.4585$^{\neq}$	4
"C"	0.7377	4
MR (Obs.)	176.21$^{\neq}$	2
MR (Calc.)	175.652	5
(nD-d/2)	1.0480$^{\neq}$	2
Dielectric	2.14	5
A 353 to	7.63610	4
B 610 °C	3057.7	4
C	144.	5
A* 353 to	2.59333	5
B* 570 °C	2970.0	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	560.0	5

		Ref.
dt/dP °C/mm		
0.1 mm	178.05	5
BP	0.0773	5
t_e	0.0359	5
30 mm	1.1669	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	41.81	5
BP	33.14	5
t_e	29.59	5
t_e (d, e)	29.52	5
ΔHv/T_e	18.86	5
d 353 to	62.67	5
e 560 °C	0.0592	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8889	5
t_e	0.8466	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	29.62	5
30	28.69	5
40	27.78	5
Parachor [P] 20°C		
30		
40		
Sugd.	1494.4	5
Exp. L.1.%/wt.		
u.		
Dispersion	101.$^{\neq}$	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 41

NAME	1-Nonatriacontyne		**STRUCTURAL FORMULA** $C_{37}H_{75}C{\equiv}CH$
Mole % Pur.	**Ref.**	**Molecular Formula** $C_{39}H_{76}$	**Molecular Weight** 544.998

		Ref.
F.P. °C	82.	2
F.P. 100%		
B.P. °C 760 mm	505.	2
100	403.81	4
30	357.42	4
10	321.5	5
1	260.7	5
0.1	214.0	5
Press. mm t_e	1975.5	5
Density g/ml 20°C	0.8295≠	2
d_4^t 25	0.8262≠	2
30	0.8229≠	4
a	0.8427	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4628≠	2
25	1.4608≠	2
30	1.4588≠	4
"C"	0.7376	4
MR (Obs.)	180.85≠	2
MR (Calc.)	180.270	5
(nD-d/2)	1.0481≠	2
Dielectric	2.14	5
A 358 to	7.64056	4
B 616 °C	3084.3	4
C	143.	5
A* 358 to	2.60759	5
B* 576 °C	2996.9	5
K		
c		
t_k to		
t_x °C		
A' to		
B' °C		
C'		
A'* to		
B'* °C		
Ac to		
Bc t_c °C		
Cc		
Cryos. consts. A°		
B°		
t_e °C	566.9	5

		Ref.
dt/dP °C/mm 0.1 mm	179.41	5
BP	0.0778	5
t_e	0.0359	5
30 mm	1.1754	5
ΔHm cal/g		
ΔHv cal/g 0.1 mm		
30 mm	41.09	5
BP	32.53	5
t_e	28.97	5
t_e (d, e)	28.95	5
ΔHv/T_e	18.77	5
d 358 to	61.83	5
e 567 °C	0.0580	5
d' to		
e' °C		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT 0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8881	5
t_e	0.8453	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to		
A^v °C		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to		
g °K		
h		
f' to		
g' °K		
h'		
m to		
n °K		
o		
m' to		
n' °K		
o'		
Surface tension dynes/cm. γ 20°C	29.67	5
30	28.74	5
40	27.83	5
Parachor [P] 20°C		
30		
40		
Sugd.	1533.4	5
Exp. L.1.%/wt. u. Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M. Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

LITERATURE REFERENCES:

No. 42

NAME	1-Tetracontyne	STRUCTURAL FORMULA	$C_{38}H_{77}C{\equiv}CH$
Mole % Pur.	Ref.	Molecular Formula $C_{40}H_{78}$	Molecular Weight 559.024

		Ref.
F.P. °C	83.	2
F.P. 100%		
B.P. °C		
760 mm	512.	2
100	409.99	4
30	363.21	4
10	327.0	5
1	265.6	5
0.1	218.5	5
Press. mm t_e	1993.7	5
Density g/ml d_4^t 20°C	0.8301≠	2
25	0.8268≠	2
30	0.8235≠	4
a	0.8433	4
b	-0.0366	4
Ref. Index n_D 20°C	1.4632≠	2
25	1.4612≠	2
30	1.4592≠	4
"C"	0.7377	4
MR (Obs.)	185.51 ≠	2
MR (Calc.)	184.888	5
(nD-d/2)	1.0481≠	2
Dielectric	2.14	5
A 364 to 625 °C	7.64695	4
B	3117.1	4
C	142.	5
A* 364 to 585 °C	2.62122	5
B*	3028.9	5
K		
c		
t_k to °C		
t_x		
A' to °C		
B'		
C'		
A'* to °C		
B'*		
Ac to °C t_c		
Bc		
Cc		
Cryos. consts. A°		
B°		
t_e °C	575.0	5

		Ref.
dt/dP °C/mm		
0.1 mm	181.05	5
BP	0.0784	5
t_e	0.0359	5
30 mm	1.1854	5
ΔHm cal/g		
ΔHv cal/g		
0.1 mm		
30 mm	40.45	5
BP	32.01	5
t_e	28.45	5
t_e (d, e)	28.45	5
ΔHv/T_e	18.75	5
d 364 to 575 °C	61.05	5
e	0.0567	5
d' to °C		
e'		
d_c g/ml		
v_c ml/g		
t_c °C		
P_c mm		
PV/RT		
0.1 mm	1.0000	5
30 mm	1.0000	5
BP	0.8881	5
t_e	0.8449	5
t_c		
ΔHc kcal/m		
ΔHf		
ΔFf		
Viscosity centistokes η °C		
B^v to °C		
A^v		
(B^v)		
(A^v)		
c_p liq. °K		
c_p vap. °K		
c_v vap.		

		Ref.
f to °K		
g		
h		
f' to °K		
g'		
h'		
m to °K		
n		
o		
m' to °K		
n'		
o'		
Surface tension dynes/cm. γ 20°C	29.72	5
30	28.79	5
40	27.87	5
Parachor [P] 20°C		
30		
40		
Sugd.	1572.4	5
Exp. L.l.%/wt.		
u.		
Dispersion	101.≠	2
Flash Point °C		
Fire Point		
M Spec.		
Ultra V.		
X-Ray Dif.		
Infrared		
Solubility in +		
Acetone		
Carbon tet.		
Benzene		
Ether		
n-Heptane		
Ethanol		
Water		
Water in		

≠ for undercooled liquid

+ grams/100 grams solvent

REFERENCES: 1-Dow 2-API 3-Lit. 4-Calc. from det. data 5-Calc. by formula

SOURCE: API

PURIFICATION: API

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